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U.S. Department
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**National Highway
Traffic Safety
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*** *** ***

TRANSPORTATION RESEARCH CENTER

Indiana University
Bloomington, Indiana 47405

ON-SITE AIR BAG INVESTIGATION

CASE NO. - 91-03
FLEET - PRIVATE VEHICLE
LOCATION - [redacted] INDIANA
ACCIDENT DATE - [redacted] 1991

Submitted By:

[redacted]

[redacted] 1991

Contract Number: DTNH22-87-C-07169

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

Technical Report Documentation Page

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TRC/IU Case No. 91-03		

4. Title and Subtitle	5. Report Date
On-Site Air Bag Investigation Fleet - Private Vehicle Location - [redacted] Indiana	[redacted] 1991
	6. Performing Organization Code
7. Author(s) [redacted]	8. Performing Organization Report No. TRC/IU 91-03, Task 0073
9. Performing Organization Name and Address Indiana University Transportation Research Center [redacted] Building, Room [redacted] [redacted] Indiana 47405	10. Work Unit No. (TRAIS)
	11. Contract or Grant No. DTNH22-87-C-07169
12. Sponsoring Agency Name and Address U.S. Department of Transportation (NRD-32) National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590	13. Type of Report and Period Covered [redacted] 1991
	14. Sponsoring Agency Code

15. Supplementary Notes

On-site air bag deployment investigation involving a 1990 Lincoln Continental

16. Abstract

This report covers an on-site investigation of an air bag deployment collision that involved a 1990 Lincoln Continental and a 1979 Oldsmobile Cutlass Supreme. The Continental was traveling west in the westbound lane of a two-lane, undivided U.S. highway in a right curve. The front of the case vehicle impacted the front of the Oldsmobile causing the Continental to rotate almost 90 degrees clockwise and block the eastbound lane. The Cutlass rotated approximately 60 degrees counterclockwise, blocking most of the westbound lane. The collision caused the driver side and right-front passenger side supplemental restraints (air bags) to deploy in the case vehicle. The driver was also wearing the available 3-point lap and shoulder belt, and he sustained a fractured right femur (AIS-3) and was hospitalized 37 days. The right front passenger was wearing her available 3-point lap and shoulder belt; she sustained fatal injuries which included: a laceration to the left frontal lobe of the brain with intra-cerebral hemorrhage (AIS-4s). She died approximately four hours twenty minutes post-crash. The driver of the Cutlass was wearing her available 3-point lap and shoulder belt; she sustained fatal injuries which included: a transection of the thoracic aorta (AIS-5). She died at the scene approximately twelve minutes post-crash. The right front passenger in the Cutlass was not wearing her available 3-point lap and shoulder belt; she sustained fatal injuries which included: a transection of the thoracic aorta (AIS-5). She died at the scene approximately nine minutes post-crash.

17. Key Words	18. Distribution Statement
Air Bag Motor Vehicle Traffic Accident Deployment Injury Severity	General Public

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	205	

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TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. 91-03

FLEET - PRIVATE VEHICLE
LOCATION - [redacted], INDIANA

Summary

This report concerns a motor vehicle accident involving an air bag equipped 1990 Lincoln Continental Signature and a 1979 Oldsmobile Cutlass Supreme Brougham occurring on [redacted], 1991 at [redacted] p.m. near [redacted], Indiana on a U.S. Highway.

The Continental was traveling west in the westbound lane of a two-lane undivided trafficway when it impacted the Cutlass which was traveling east on the same trafficway. The Continental rotated almost 90 degrees clockwise after impact and came to rest facing north and blocking the eastbound lane. The Cutlass rotated approximately 60 degrees counterclockwise after impact and came to rest facing northeast and blocking most of the westbound lane.

The front of the Continental impacted the front of the Cutlass. CDCs were determined to be: 11-FDEW-4 for the Continental and 12-FDEW-4 for the Cutlass. The CRASHPC reconstruction program, damage only algorithm, was used on the Continental's impact. The Total, Longitudinal, and Lateral Delta Vs are respectively: 38.6 m.p.h., - 36.3 m.p.h., and + 13.2 m.p.h.

The 1990 Lincoln Continental was equipped with both driver and right-front passenger supplemental restraint systems (air bags) which deployed as a result of the frontal impact. The driver of the vehicle (80 year-old male) was also restrained by the active three-point lap and shoulder belt. He sustained a fractured right femur, a fractured right ankle, multiple contusions, and lacerations above both eyes. The driver of the Continental was listed on the Police Accident Report as sustaining an "A" (incapacitating) injury as a result of this accident. The passenger (81 year-old female) in the Continental was also restrained by the active three-point lap and shoulder belt. She sustained a laceration to the left frontal lobe of the brain with intra-cerebral hemorrhage and contusion, a right-side contrecoup epidural hemorrhage, stomach laceration, bilateral contused lungs with laceration and hemorrhage, liver contusion, unknown spleen lesion, bilateral fractures of ribs 2-12 with bilateral hemothorax, bilateral radial fractures (location unspecified), and bilateral fractures to her tibias and fibulas (location unspecified). She was listed on the Police Accident Report as sustaining a "K" (fatal) injury.

The driver (39 year-old female) of the Cutlass was restrained by the active three-point lap and shoulder belt. She was listed on the Police Accident Report as sustaining a "K" (fatal) injury. Her injuries included: a transection of the thoracic aorta, urinary bladder laceration, liver laceration, bilateral contusion to the lungs with hemorrhage, laceration, and hemothorax on the right, and multiple fractures--left clavicle, left ribs 1-12, right femur, nose, and pelvic (unspecified). The passenger (14 year-old female) in the Cutlass was not wearing the available active three-point lap and shoulder belt. She was listed on the Police Accident Report as sustaining a "K" (fatal) injury. Her injuries included: a transection of the thoracic aorta, lacerations to spleen and liver, contusion to both lungs with right-side hemorrhage and bilateral hemothorax, and multiple fractures--right zygoma, right femur, and right foot (unspecified).

ACCIDENT SCHEMATIC
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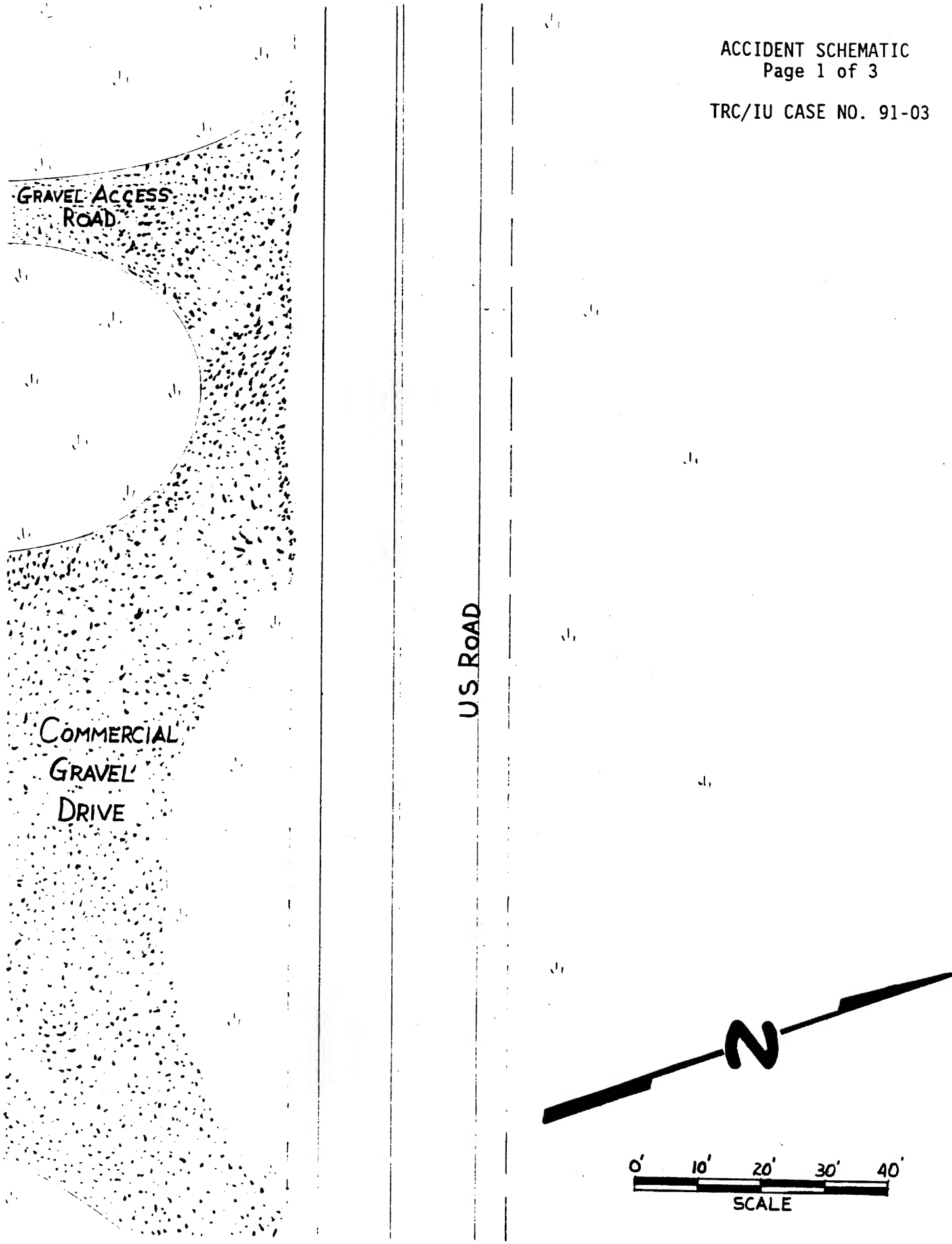
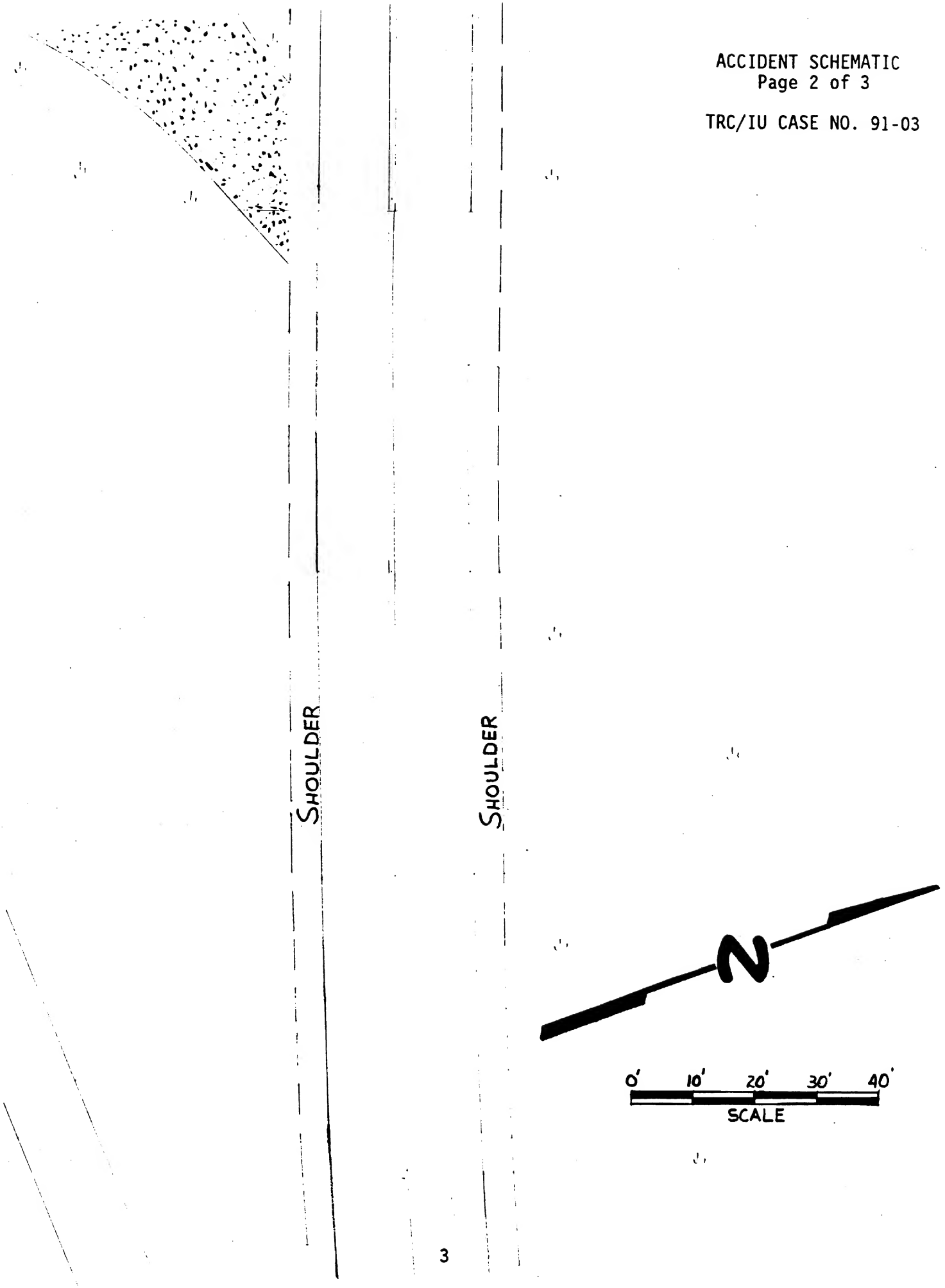
TRC/IU CASE NO. 91-03

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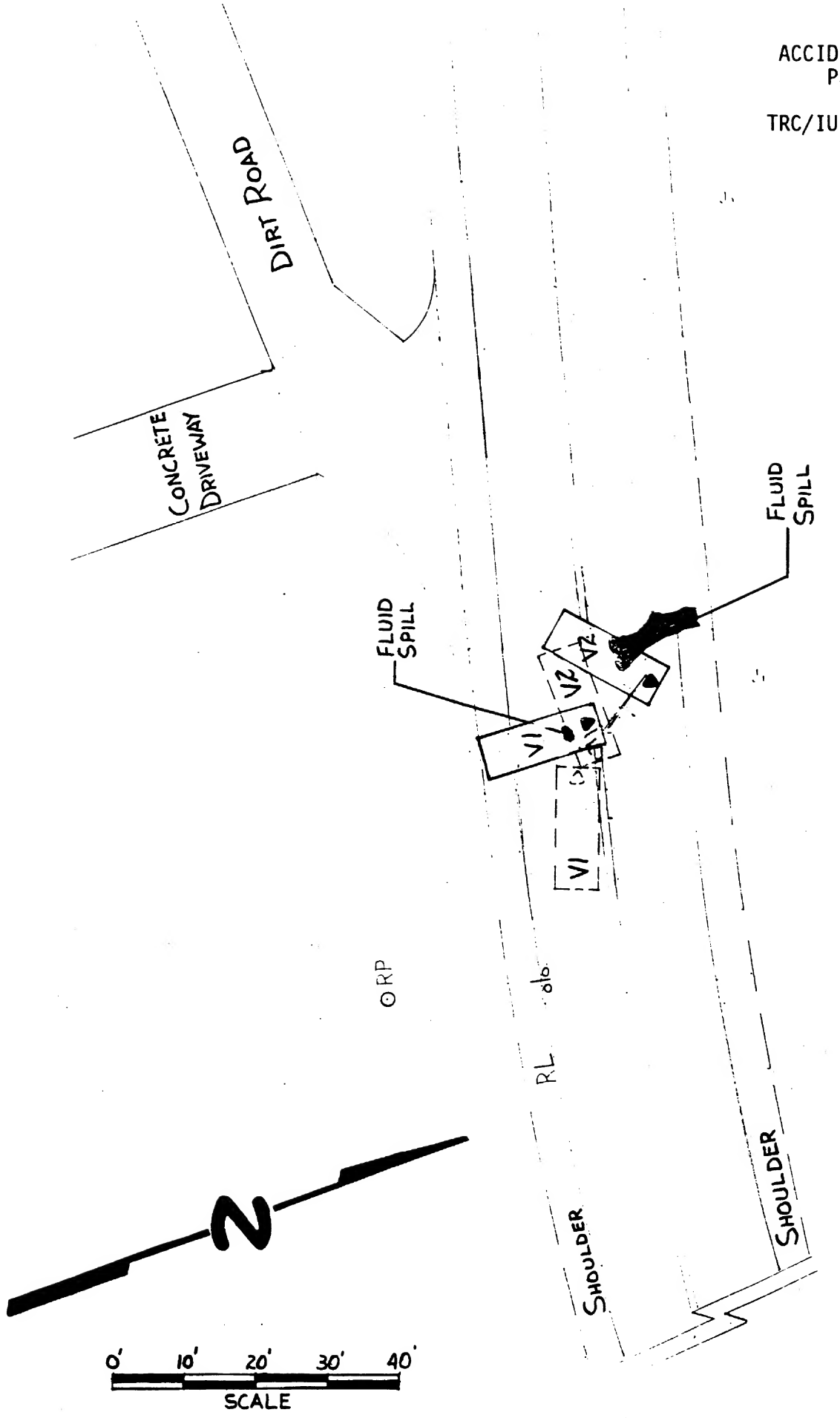
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TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. 91-03

FLEET - PRIVATE VEHICLE
LOCATION - [redacted], INDIANA

ACCIDENT DATA

Location/Street:	U.S. Highway
City/Township:	[redacted] County, [redacted], near [redacted] Indiana
Area/Type:	Rural/Agricultural
Accident Date/Time:	[redacted] 1991 @ [redacted] p.m.
Investigating Police Agency:	[redacted] County Sheriff Department
Accident Type:	Car / Car - head-on
Occupant Injury Severity (air bag vehicle):	Driver: fractured femur (AIS-3) Passenger: lacerated brain (AIS-4)

AMBIENT CONDITIONS

Light conditions:	Daylight
Weather Condition:	Cloudy
Precipitation:	None
Road Surface:	Dry

ROADWAY

	Case Vehicle	Vehicle #2
Location:	U.S. highway	U.S. highway
Number of Travel Lanes:	2-lanes, undivided	2-lanes, undivided
Width:	12.7 feet	11.7 feet
Surface Type:	Asphalt	Asphalt
Median:	None	None
Shoulders:	Asphalt/gravel	Asphalt/gravel

ROADWAY (CONT'D.)

	Case Vehicle	Vehicle #2
Vertical alignment:	Level (0.5 % negative to west)	Level (0.5 % positive to east)
Horizontal alignment:	Curve right	Curve left
Estimated Coefficient of Friction:	0.65	0.65
Traffic Density:	Unknown	Unknown

TRAFFIC CONTROLS

	Case Vehicle	Vehicle #2
Signals:	None	None
Signs:	Curve Warning	None
Markings:	Single solid white edgelines (both sides), double solid yellow centerline	Single solid white edgelines (both sides), double solid yellow centerline
Speed Limit:	50 m.p.h.	50 m.p.h.

VEHICLES

	Case Vehicle	Vehicle #2
Year:	1990	1979
Make:	Lincoln	Oldsmobile
Model:	Continental Signature	Cutlass Supreme Brougham
Body Type:	4-door sedan	2-door hardtop coupe
V.I.N.:	1LNLM9841LY------	3R47F9M------
Color:	Silver	Green with white vinyl top
Mileage:	Unknown	121,708
Engine:	6 cylinder, 3.8 liter	8 cylinder, 260 cc

VEHICLES (CONT'D.)

	Case Vehicle	Vehicle #2
Transmission:	4-speed overdrive automatic, column mounted	3-speed automatic, column mounted
Steering:	Power-assisted rack-and-pinion	Power-assisted pump and gear box
Brakes:	Power-assisted, 4-wheel disc with anti-lock	Power-assisted, front disc, rear drum
Padding:	Padded instrument panel and knee bolsters with smooth contours, soft edged steering wheel rim with air bag module cover, soft sunvisors, door panels, door armrests, inboard armrests, and adjustable head restraints	Padded instrument panel, sunvisors, door panels, armrests, and adjustable head restraints
Active Restraints:	3-point lap and shoulder belts at front and rear outboard seating positions; lap belt only at center front and rear seating positions	3-point lap and shoulder belts at front outboard seating positions; lap belt only at center front and rear (left, center, & right) seating positions
Passive Restraints:	Factory installed driver and right-front passenger supplemental restraint systems (air bags)	None
Defects:	None	Unknown
Fleet:	Private vehicle	Private vehicle
Tow status:	Towed due to damage	Towed due to damage

VEHICLE DAMAGE

Exterior	Case Vehicle	Vehicle #2
Deployment Impact		
Event number:	1	1
Object Struck:	Vehicle #2	Case Vehicle
Damage location		
Damaged Plane:	Front	Front
Vertical Location On Plane:	Bumper	Bumper
Direct Begins:	Front-left corner	Front-right corner
Length Direct:	55.0 inches	60.0 inches
Field L:	54.0 inches	49.5 inches
C_1:	17.00 inches	8.50 inches
C_2:	27.25 inches	25.50 inches
C_3:	33.50 inches	34.00 inches
C_4:	36.00 inches	39.00 inches
C_5:	32.75 inches	40.50 inches
C_6:	30.50 inches	46.00 inches
D:	0.00 inches	0.00 inches
Maximum Crush:	36.00 inches	46.00 inches
Location:	C_4	C_6
CDC:	11-FDEW-4	12-FDEW-4
Damaged Components:	Front bumper; grille; headlights: left and right; turn signals: left and right; hood; left-front fender; left: "A"-pillar, roof rail; right-rear door; right: roof rail, "A"-pillar; right-front: door, latch/post, fender; windshield; roof	Front bumper; grille; headlights: left and right; turn signals: left and right; hood; left-front: fender, door, rocker panel; left quarterpanel; rear axle; right: "A"-pillar, quarterpanel; right-front: door, fender, door glass; roof; windshield
Interior		
Damaged Components:	Left: upper "A"-pillar, roof rail, middle instrument panel; center middle instrument panel; rearview mirror; right upper "A"-pillar; toe pan at all three front seat positions	Left toe pan and floorboard; center: middle instrument panel, toe pan and floorboard; right: instrument panel, upper "A"-pillar, roof rail, lower "A"-pillar, toe pan and floorboard, sunvisor; rearview mirror

VEHICLE DAMAGE (CONT'D.)

Interior (Cont'd.)	Case Vehicle	Vehicle #2
Other Evidence of Occupant Contact:	Left lower instrument panel (knee bolster); steering wheel rim; driver: air bag, lap and shoulder belt, left side of sunroof; right side of steering column shroud, center lower instrument panel (knee bolster to right of steering column); radio; right instrument panel above glove box; glove box; right-front: door panel, passenger air bag, passenger lap and shoulder belt	Left lower instrument panel, steering wheel and rim (snapped-off steering column), center middle instrument panel, radio, right side of windshield, glove box
Manual Restraint System Failures:	None	None
Seat Performance Failures:	None	None
Repair		
Cost Estimate:	Total loss	Total loss

VEHICLE VELOCITY ESTIMATES

Highest Delta "V"	Case Vehicle	Vehicle #2
Reconstruction Program:	CRASHPC	CRASHPC
Program Algorithm:	Damage* only	Damage* only
Travel Speed:	50 m.p.h. estimated	35 m.p.h. estimated
Total Delta "V":	38.6 m.p.h.	42.1 m.p.h.
Longitudinal Delta "V":	-36.3 m.p.h.	-41.5 m.p.h.
Lateral Delta "V":	+13.2 m.p.h.	- 7.3 m.p.h.

* Final rest positions are known; at-impact positions and heading angles are "best guesses". Considerable effort was expended trying to obtain, without success, a trajectory solution. The axial nature of this impact coupled with the fact the vehicles in essence, spun-out, to final rest

VEHICLE VELOCITY ESTIMATES (CONT'D.)

Highest Delta "V" (Cont'd.) **Case Vehicle** **Vehicle #2**

prevents resolution. It is likely that last minute steering inputs occurred resulting in a clockwise slip angle for the case vehicle and a counterclockwise slip angle for vehicle #2. However, no physical evidence is available to support vehicle pre-crash yawing.

COLLISION SEQUENCE

Pre-Crash: The case vehicle (Continental) was traveling west in the westbound lane of a two-lane undivided U.S. highway in a right-hand curve and was attempting to continue in its direction of travel. Vehicle #2 was traveling east in the eastbound lane of the same trafficway and was attempting to continue in its direction of travel. Vehicle #2 had just traversed a right-hand curve prior to entering the left-hand curve. Because (1) there were no discernible pre-impact pavement marks deposited by either vehicle, (2) the case vehicle driver has no memory of the crash sequence, and (3) the driver of vehicle #2 was killed, there is no reliable evidence to indicate why each vehicle crossed the centerline, nor if either driver attempted any avoidance maneuvers. The accident occurred when the two vehicles collided in the center of the trafficway with each vehicle across the centerline.

Crash: The front of the case vehicle impacted the front of vehicle #2 causing both the driver and right-front passenger side supplemental restraint systems (air bags) to deploy. The case vehicle rotated almost 90 degrees clockwise after impact and came to rest blocking the eastbound lane. Vehicle #2 rotated approximately 60 degrees counterclockwise after impact and came to rest blocking most of the westbound lane.

Post-Crash:

Occupants: The driver of the case vehicle remained inside the vehicle at final rest and was found leaning back in the seat trying to support his slumped wife. He was conscious but disoriented and was unable, because of his injuries, to exit the case vehicle. The front-right passenger remained inside the vehicle at final rest and was found slumped towards her husband (driver). She was unconscious and was unable to exit the case vehicle.

Police: The investigating police agency was notified of the accident within two minutes and arrived on-scene within five minutes. Traffic control procedures were established and emergency medical, fire, and towing services were called to assist.

Rescue: The driver was transported by an EMS unit to a medical facility where he was hospitalized. The front-right passenger was transported by an EMS unit to a medical facility where she died almost [redacted].

COLLISION SEQUENCE (CONT'D.)

Removal: Following the police investigation, the case vehicle was towed from the scene.

HUMAN FACTORS/OCCUPANT DATA

	Case Vehicle	Vehicle #2
Driver:	80 year-old male	39 year-old female
Height:	70 inches	61 inches
Weight:	182 pounds	200 pounds
Occupation:	Retired	Unknown
Active Restraint System/Usage:	3-point lap and shoulder/used	3-point lap and shoulder/used
Usage Source:	Vehicle inspection	Vehicle inspection
Eye glasses/contacts:	Glasses/worn	None
Vehicle Familiarity:	Approximately 18 months	Unknown
Route Familiarity:	Twice/month	Unknown
Trip Plan:	Restaurant to home	Unknown
Manner of Leaving Scene:	EMS ambulance	EMS ambulance
Type of Medical Treatment:	Hospitalized	None
Passenger:	81 year-old female	14 year-old female
Seated Position:	Front-right	Front-right
Height:	62 inches	66 inches
Weight:	160 pounds	130 pounds
Active Restraint System/Usage:	3-point lap and shoulder/used	3-point lap and shoulder/not used
Usage Source:	Vehicle inspection	Vehicle inspection
Manner of Leaving Scene:	EMS ambulance	EMS ambulance
Type of Medical Treatment:	Emergency room, surgery, and intensive care	None

C A S E V E H I C L E:

DRIVER INJURIES

Injury	Severity (OIC/AIS)	Source
Fractured right femur	TRFS-3	Left instrument panel
Fractured and dislocation right ankle	QRZJ-3	Foot controls
Fractured right ulnar styloid process	WRFS-2	Left instrument panel
Fractured left 5th rib	CLFS-1	Steering wheel rim
Amnesia	HWKB-2	Steering wheel rim
Laceration eyebrows, bilateral	FSLI-1	Air bag (driver's glasses)
Contusion abdomen	MICI-1	Lap belt
Contusion left wrist	WLCI-1	Left instrument panel
Contusion right wrist	WRCI-1	Left instrument panel
Laceration right wrist	WRLI-1	Left instrument panel
Contusion right knee	KRCI-1	Left instrument panel
Lacerations right arm	XRLI-1	Left instrument panel
Abrasions right arm	XRAI-1	Left instrument panel
Lacerations left arm	XLLI-1	Left instrument panel
Contused buttocks, bilateral	PPCI-2	Seat
Contusion chest	CCCI-1	Shoulder belt
Contusion lower back	BICI-1	Seat back support

PASSENGER INJURIES

Injury	Severity (OIC/AIS)	Source
Laceration left frontal lobe of brain	HALB-4	Center instrument panel
Intra-cerebral hemorrhage	HAUB-4	Center instrument panel
Contusion left frontal lobe	HACB-3	Center instrument panel
Epidural hemorrhage, right	HRUB-4	Center instrument panel
Contusion left lung	CLCP-3	Shoulder belt & air bag
Contusion right lung	CRCP-3	Shoulder belt & air bag
Laceration left lung	CLLP-3	Shoulder belt & air bag
Laceration right lung	CRLP-3	Shoulder belt & air bag
Unknown lesion spleen	MLUQ-2	Shoulder belt & air bag
Laceration stomach	MSLD-2	Shoulder belt & air bag
Contusion liver	MRCL-2	Shoulder belt & air bag
Fractured ribs 2-12, bilaterally	CBFS-4	Shoulder belt & air bag
Fracture left radius	RLFS-2	Right instrument panel
Fracture right radius	RRFS-2	Right instrument panel
Fracture left fibula	LLFS-2	Toe pan
Fracture right fibula	LRFS-2	Toe pan
Fracture left tibia	LLFS-2	Toe pan
Fracture right tibia	LRFS-2	Toe pan
Contusion chest	CUCI-1	Shoulder belt
Contusion right lateral neck	NRCI-1	Shoulder belt

PASSENGER INJURIES (CONT'D.)

Injury	Severity (OIC/AIS)	Source
Contusion left head	HLCI-1	Center instrument panel
Contusion left periorbital	FLCO-1	Center instrument panel
Contusion abdomen	MUCI-1	Lap belt
Contusions right arm	XRCI-1	Right instrument panel
Contusions left arm	XLCI-1	Center instrument panel
Contusions right leg	YRCI-1	Right instrument panel
Abrasions right leg	YRAI-1	Right instrument panel
Contusions left leg	YLCI-1	Center instrument panel
Abrasions left leg	YLAI-1	Center instrument panel

DRIVER KINEMATICS

The driver remembers passing certain landmarks prior to the crash and remembers talking to people post-crash, but remembers nothing in-between. The driver was probably in a normal seated posture prior to the crash sequence. Any driver movements prior to the collision are unknown but probably insignificant. He responded to the 11 o'clock impact (PDOF = -20 degrees) by moving forward and slightly to the left with respect to the vehicle's interior. As his pelvic/lower abdominal region and upper torso loaded the active restraint system, he sustained several small contusions to the chest from the shoulder belt and a side-to-side contusion to the lower abdomen from the lap belt contact. The driver subsequently contacted the deployed air bag with his upper torso and face. He sustained small "nicks" above both eyes from his glasses during the facial contact with the air bag. As the driver reached maximum air bag envelopment, his head hit the top of the steering wheel rim and his chest the left side of the rim. In addition, both arms went forward and contact the instrument panel, contusing and lacerating his wrists and fracturing the right ulnar styloid process. Further, the driver sustained a fractured right femur from his knee loading the instrument panel and a fracture/dislocation of his right ankle through foot pedal contact. The driver rebounded rearward into the seat and back support with such force that his lower back and both buttocks were contused.

PASSENGER KINEMATICS

The passenger was probably in a normal seated posture prior to the crash sequence. Any movements prior to the collision are unknown but probably insignificant. She responded to the 11 o'clock impact (PDOF = -20 degrees) by moving forward and slightly to the left with respect to the vehicle's interior. As the occupant moved forward, her hips were restrained by the lap belt portion of the active 3-point lap and shoulder belt. Her torso loaded the shoulder belt portion contusing her right lateral neck and causing her to rotate slightly clockwise with respect to the vertical axis. The left side of her head and forehead struck the edge near the center dash where the instrument panel and air vents protrude; see slides 40-42. To accomplish this contact, her head compressed the air bag or slid sideways off of it. Meanwhile, this occupant's rib cage was compressed, first, by the loading of the torso belt, and second, by the air bag, such that her ribs fractured under the forces generated by the severity of this collision. Once the ribs broke, her lung and

PASSENGER KINEMATICS (CONT'D.)

upper abdominal injuries, described above, followed. The occupant probably attempted to brace her forward motion by placing her hands against the lower dash, thus fracturing both forearms. The degraded floor and toe pan caused her leg fractures.

AIR BAG SYSTEM	DRIVER-SIDE	PASSENGER-SIDE
Deployment Threshold:	Unknown	Unknown
Airbag Diameter (seam-to-seam, deflated):	Circular-shaped, 24 inches in diameter	Cylinder-shaped, 22 inches top to bottom, 27 inches side-to-side
Number of Vent Holes:	Two	None visible
Vent Hole Diameter:	One-half inch diameter	Not applicable
Vent Hole Clock Positions:	3 and 9 o'clock	Not applicable
Generant Residue:	None	None

SELECTED PRINTS

SLIDE INDEX

SLIDE INDEX

Slide No.	Vehicle No.	Description	Direction
1	CV	Looking back in Case Vehicle's direction of travel approximately 350 feet east-northeast of impact area	East-north-east
2-4	CV	Approach views for Case Vehicle approximately 350, 250, and 150 feet respectively east-northeast of impact area	West-south-west
5	CV	Approach view for Case Vehicle approximately 50 feet east of impact area	West
6	#2	Looking back in Vehicle #2's direction of travel approximately 350 feet west-northwest of impact area	West-north-west
7-10	#2	Approach views for Vehicle #2 approximately 350, 250, 150, and 50 feet respectively west-northwest of impact area	East-south-east
11	#2	View of impact area	East-south-east
12	CV	View of Case Vehicle's final rest position; Note: LR and RR symbols on edgeline in slide foreground	North
13	#2	View of Vehicle #2's final rest position; Note: RR symbols near shadow in lower right corner of slide and orange slash across far solid yellow yellow line of centerline for LR tire position	Northeast
14	#2	View of Vehicle #2's fluid spill and outlined gouges	East-south east
15	#2	View of Vehicle #2's fluid spill and outlined gouges	West-north west
16-31	CV	Exterior damage views of Case Vehicle	
18	CV	Note: lower windshield damage from impact with rear edge of hood	
24-25	CV	Note: roof bowing near sunroof	
32-35	CV	Views of Case Vehicle's RF door latch failure; Note: latch damage in slide 34	

SLIDE INDEX (Continued)

Slide No.	Vehicle No.	Description	Direction
36-46	CV	Interior damage views of Case Vehicle; Note: yellow tape indicates occupant contact points in slides 37-41	
44	CV	View of Case Vehicle's RF door panel; panel's final rest was forward of Case Vehicle's FRP in the west-southwest travel lane	
45-46	CV	Views of rear seating areas in Case Vehicle; Note: forward bowing at center-rear seat position	
47-52	CV	Views of active 3-point restraint system at driver's position	
47	CV	Note: cut webbing (by EMS personnel) and inboard latchplate assembly (still attached)	
48-49	CV	Views of driver-side male latchplate; Note: striations on top webbing channel	
50-51	CV	Views of driver-side "D"-ring on "B"-pillar; Note: striations on "D"-ring webbing channel	
52	CV	Note: load stretching of belt webbing at driver position	
53-58	CV	Views of active 3-point restraint system at right-front passenger's position	
54	CV	Note: striations on top webbing channel of male latchplate	
56	CV	Note: RF passenger "D"-ring striations on webbing channel	
57-58	CV	Note: load stretching of belt webbing at RF passenger position	
59-69	#2	Exterior damage views of Vehicle #2	
66,69	#2	RR tire, wheel, and approximately one-half of the rear axle removed for use as a resting prop at the RF tire	

SLIDE INDEX (Continued)

Slide No.	Vehicle No.	Description	Direction
70-78	#2	Interior damage views of Vehicle #2; Note: yellow tape indicates occupant contact points in slides 70-76	
71-72	#2	Note: floorboard inverted "V" deformation forward of front bench not accident-induced damage--"jaws-of-life" used during search for missing jewelry	
79-80	#2	Views of Vehicle #2's steering wheel; an EMT reported that the steering wheel was lying in the driver's lap post-crash, indicating driver contact caused the separation	

IN91-03#1

IN91-03#2

IN91-03#3

IN91-03#4

IN91-03#5

IN91-03#6

IN91-03#7

IN91-03#8

IN91-03#9

IN91-03#10

IN91-03#11

IN91-03#12

IN91-03#13

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IN91-03#15

IN91-03#16

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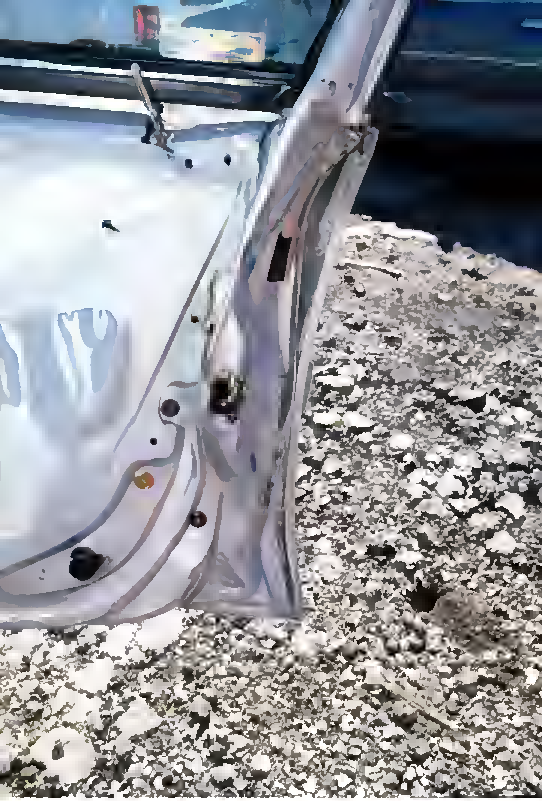
IN91-03#30

IN91-03#31

IN91-03#32



IN91-03#33

IN91-03#34

IN91-03#35

IN 91-03 #36
Best Available

IN 91-03 #37
Best Available

IN 91-03 #38
Best Available

IN 91-03 #39
Best Available

IN 91-03 #40
Best Available

IN 91-03 #41
Best Available

IN91-03#42

IN91-03#43

IN91-03#44

IN91-03#45

IN91-03#46

IN91-03#47

IN91-03#48

IN91-03#49

IN91-03#50

IN91-03#51

IN91-03#52

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IN91-03#56

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IN91-03#58

IN91-03#59

IN91-03#60

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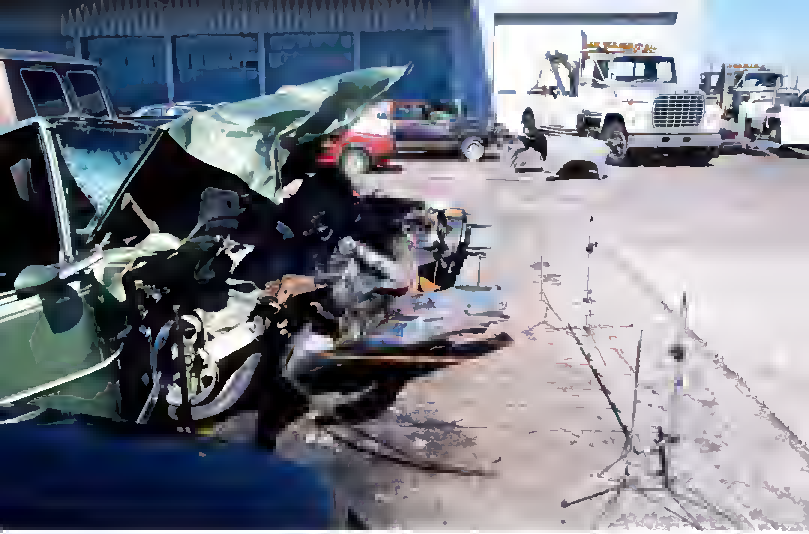
IN91-03#65

IN91-03#66

IN91-03#67



IN 91-03 #68

IN91-03#69

IN 91-03 #70
Best Available

IN 91-03 #71
Best Available

IN91-03#72

IN 91-03 #73
Best Available

IN 91-03 #74
Best Available

IN 91-03 #75
Best Available

IN91-03#76

IN 91-03 #77
Best Available

IN91-03#78

IN91-03#79

IN 91-03 #80

Accident Collision Measurement Table

U.S. Department of Transportation
National Highway Traffic Safety Administration

ACCIDENT COLLISION MEASUREMENT TABLE

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Primary Sampling Unit Number 1 0 | Case Number–Stratum 9 1 0 3

ACCIDENT COLLISION DIAGRAM

LEVEL I
PHYSICAL EVIDENCE ABSENT

To be accomplished when there is no physical evidence present at the scene:

- approximate vehicle orientation at impact and final rest
- applicable road/roadway delineation (e.g., curbs/edge lines, lane markings, median markings, pavement markings, etc.)
- applicable traffic controls (e.g., speed limit)
- north arrow placed on diagram
- sketch required

LEVEL II
PHYSICAL EVIDENCE PRESENT

In addition to the Level I tasks noted above, the following must be accomplished when physical evidence is present:

- document reference point and reference line relative to physical features present at the scene
- scaled documentation of all accident-induced physical evidence
- scaled documentation of all roadside objects contacted
- roadway surface type and condition of applicable roadways
- grade measurements for all applicable roadways
- scaled representations of the vehicle(s) at pre-impact, impact, and final rest, based upon either:
  - a) physical evidence, or
  - b) reconstructed accident dynamics

CRASH DATA

	VEH. #1	VEH. #2	VEH. #3
Heading Angle	290	90	
Surface Type	ASPHALT	ASPHALT	
Surface Condition	DRY	DRY	
Grade Measurement (v/h)	$-\frac{0.25''}{48''}$	$+\frac{0.25''}{48}$	

Reference Point: UTILITY POLE ON SOUTH ROADSIDE, EAST OF IMPACT AREA

Reference Line: SOUTH EDGELINE

Item	Distance and Direction from Reference Point	Distance and Direction from Reference Line
UTILITY POLE	X	21.5'S
ROAD WIDTH AT RP (S-N)		
SOUTH SHOULDER	X	4.7'S
LSY CENTERLINE	X	11.7'N
ROAD WIDTH	X	24.4'N
NORTH SHOULDER	X	29.2'N
EW TURN APP ON (SOUTH SIDE)	27.1'W	4.7'S
CASE VEHICLE RR FRP	30.2'W	0.4'N
BEGIN GOUGE #1	32.3'W	10.6'N
END GOUGE #1	32.9'W	11.5'N
BEGIN CASE VEHICLE FLUID SPILL	33.0'W	8.0'N
BEGIN GOUGE #2	33.5'W	10.4'N

HS Form 431A (1/91)

Item	Distance and Direction from Reference Point	Distance and Direction from Reference Line
END GOUGE #2 / BEGIN GOUGE #3	34.3'W	11.8'N / 12.6'N
BEGIN GOUGE #4	34.6'W	13.5'N
END CASE VEHICLE FLUID SPILL	35.6'W	7.6'N
CASE VEHICLE LR FRP	35.7'W	0.4'S
CASE VEHICLE LF FRP	36.9'W	8.4'N
END GOUGE #4	39.7'W	17.7'N
END GOUGE #3	41.5'W	19.4'N
BEGIN V#2 FLUID SPILL	42.3'W	16.4'N
V#2 RR FRP	44.5'W	9.5'N
V#2 LR FRP	49.2'W	12.4'N
END V#2 FLUID SPILL	50.5'W	21.3'N
EAST SIDE DRIVEWAY (SOUTH SIDE)	79.2'W	X
"V" SOUTH SIDE, DIRT ROAD	91.6'W	X
WEST SIDE DRIVEWAY	95.5'W	X
TANGENCY OF CURVE	284.5'W	
TANGENT ROAD SECTION (E-W) 290°	ROAD CURVATURE	
DIRT ROAD (E-W) 268°	0-0	18.7'S
DRIVEWAY (N-S) 164°	50'W	12.3'S
	100'W	7.5'S
U.S. HIGHWAY	150'W	3.2'S
ASPHALT	200'W	1.2'S
SINGLE SOLID WHITE EDGELINES	250'W	0.5'S
DOUBLE SOLID YELLOW CENTERLINE	284.5W	0.0
IMPROVED SHOULDERS BOTH SIDES		
ESTIMATED C/F 0.65		

U.S. GOVERNMENT PRINTING OFFICE 1991 - 519-026

Appendix A:

Police Accident Report

[redacted] OFFICER'S STANDARD ACCIDENT REPORT

State Form 23558R2/Stock 302

Mail to: [redacted] State Police, Accident Records Section, 100 North Senate Avenue, [redacted]

OFFICE USE ONLY

Accident I D No

1. Prim. 10 / V1 10 / V1 / V2 / V2

7: 2

LOCATION

Date of Accident (Month, Day, Year)	Day of Week	Actual Local Time	No Motor Vehicles	No Injured	No Dead	No Trailers
[redacted] 91	[redacted]	4:28 X AM / PM	2	1	3	

County	Township	City/Town or Nearest City/Town
[redacted]	[redacted]	[redacted]

8: 7

Inside Corporate Limits? [ ] Yes [X] No — Property? [ ] Private [X] Other [ ] DNR — Distance and Direction From Corporate Limits: ____ Miles North, 4.0 Miles South, 2.0 Miles East, ____ Miles West

2. V1 9 / V2 1

Road Accident Occurred On		Intersecting Road/Mile Marker/Interchange
U.S. [redacted]		

If not at Intersection, number of feet from	Direction	Nearest Intersecting Road/Mile Marker/Interchange
550 ft.	west	C.R. [redacted]

9: 4

DRIVER 1

3. V1 1 / V1 / V1 / V2 1 / V2 / V2

Driver's Name (Last, First, MI): [redacted]

Address (Street, City, State, Zip): [redacted]

Apparent Phys Stat (enter no.)	Sex	Date of Birth (Month, Day, Year)	Arrested?
1	M	[redacted] 80	[ ] Yes [X] No

Driver's License No	Lic Type	Lic St	Restr
[redacted]	op	IN	A

VEHICLE 1

4. V1 10 / V1 / V2 10 / V2

Color	Veh Yr	Make	Model Name
Gray	90	Lincoln	Continental 4dr

Veh Type (enter no.)	Lic Yr	License No	Lic State
1	90	[redacted]	IN.

Veh Use (enter no.)	Speed Limit	Fuel Tax No
1	50	

Direction of Travel	No Occupants	Fire?	No Axles	Transporting Hazardous Mat
west	2	[ ] Yes [X] No	2	[ ] Yes [X] No

Towed To	Towed By
[redacted]	[redacted]

Registered Owner's Name (Last, First, MI): Same as driver

Address (Street, City, State, Zip): Same as above

TRAILER 1

6: 2

Registered Owner's Name (Last, First, MI):

Address (Street, City, State, Zip):

License No	Make	Year	Lic St	Lic Yr

DRIVER 2

10: 2

Driver's Name (Last, First, MI): [redacted]

Address (Street, City, State, Zip): [redacted]

Apparent Phys Stat (enter no.)	Sex	Date of Birth (Month, Day, Year)	Arrested?
1	F	[redacted] 39	11: [ ] Yes [X] No — 1

Driver's License No	Lic Type	Lic St	Restr
[redacted] (suspended)	op	IN	B

VEHICLE 2

12: 2

Color	Veh Yr	Make	Model Name
Green	79	Olds	Cutlass 2dr.

Veh Type (enter no.)	Lic Yr	License No	Lic State
1	91	[redacted]	IN.

Veh Use (enter no.)	Speed Limit	Fuel Tax No
1	50	

Direction of Travel	No Occupants	Fire?	No Axles	Transporting Hazardous Mat
east	2	[ ] Yes [X] No	2	14: [ ] Yes [X] No — 5

Towed To	Towed By
[redacted]	[redacted]

Registered Owner's Name (Last, First, MI): Same as driver — 15: 1

Address (Street, City, State, Zip): Same as above

TRAILER 2

Registered Owner's Name (Last, First, MI):

Address (Street, City, State, Zip): — 15A: 2

License No	Make	Year	Lic St	Lic Yr.

DAMAGE

INITIAL IMPACT V1	INITIAL IMPACT V2
2	3
DAMAGE EST V1	**DAMAGE EST V2**
7	4

Areas Damaged (Multiples) — VEHICLE 1 / VEHICLE 2

10 - Undercarriage
11 - Trailer
12 - None

OTHER PROPERTY (INCLUDE CARGO)

Name of Object	OWNER'S NAME AND ADDRESS	Damage Est (use chart)

PEDESTRIAN

Direction	Street/Highway	Arrested?	Apparent Phys Stat (enter no.)
		[ ] Yes [ ] No	

What was pedestrian doing before accident? Enter No

1 Not in roadway
2 Standing in roadway
3 Playing in roadway
4 Pushing or working on vehicle
5 Other working in roadway
6 Walking in roadway with traffic
7 Walking in roadway against traffic
8 Getting on or off vehicle
9 Getting on or off school bus
10 Crossing or entering not at intersection
11 Crossing or entering at intersection
12 Other

Pedestrian Traffic Control? [ ] Yes [ ] No

16	17	18	18A	19	20		21	22	23	24	25	26	27	28	29
		3/6	1	4	DRIVER OF VEHICLE 1 (as listed above)	A	8	11	2	03/77	[redacted]		2	1	.00
		3	1	4	DRIVER OF VEHICLE 2 (as listed above)	K	2	1	6	05/85	[redacted]		2	1	.00
1	3	3/6	1	4	[redacted]	K	2	1	6	06/63	31	F	1		
2	3	1		4	[redacted]	K	2	1	6	05/85	14	F	1		

Diagram

Indicate NORTH by an arrow

SEE ATTACHED DIAGRAM

NARRATIVE (Refer to Vehicle by Number)

SEE ATTACHED NARRATIVE

D1 Insured By [redacted]

D2 Insured By [redacted]

Other Participant(s) Name, [redacted]

Name of Witness No. 1 [redacted]

Address [redacted]

Location at Time of Accident west of pt of impact

Name of Witness No. 2

Address

Location at Time of Accident

Name of Person Arrested

I.C. Code(s)

Name of Person Arrested

I.C. Code(s)

INVESTIGATION

Time Notified [redacted] AM PM X

Time Arrived [redacted] AM PM X

Other Location of Investigation [redacted]

Investigation Complete XX Yes No

Photos Taken X Yes No

Admins Officer [redacted]

I.D. No. [redacted]

Agency [redacted] Co. Police Dept.

Date of Report [redacted]01

Admins Officer [redacted]

I.D. No. [redacted]

Agency [redacted] Co. Police Dept.

Driver Report Form Furnished D1 D2

Investigation Officer's Signature [redacted]

I.D. No. [redacted]

Agency [redacted] Co. Police Dept.

Accident Report Number: [redacted]

Case Report Number: [redacted]

On U.S. [redacted] West of County Road [redacted] East
In [redacted] County, Indiana
[redacted] 1991
At: [redacted] p.m.

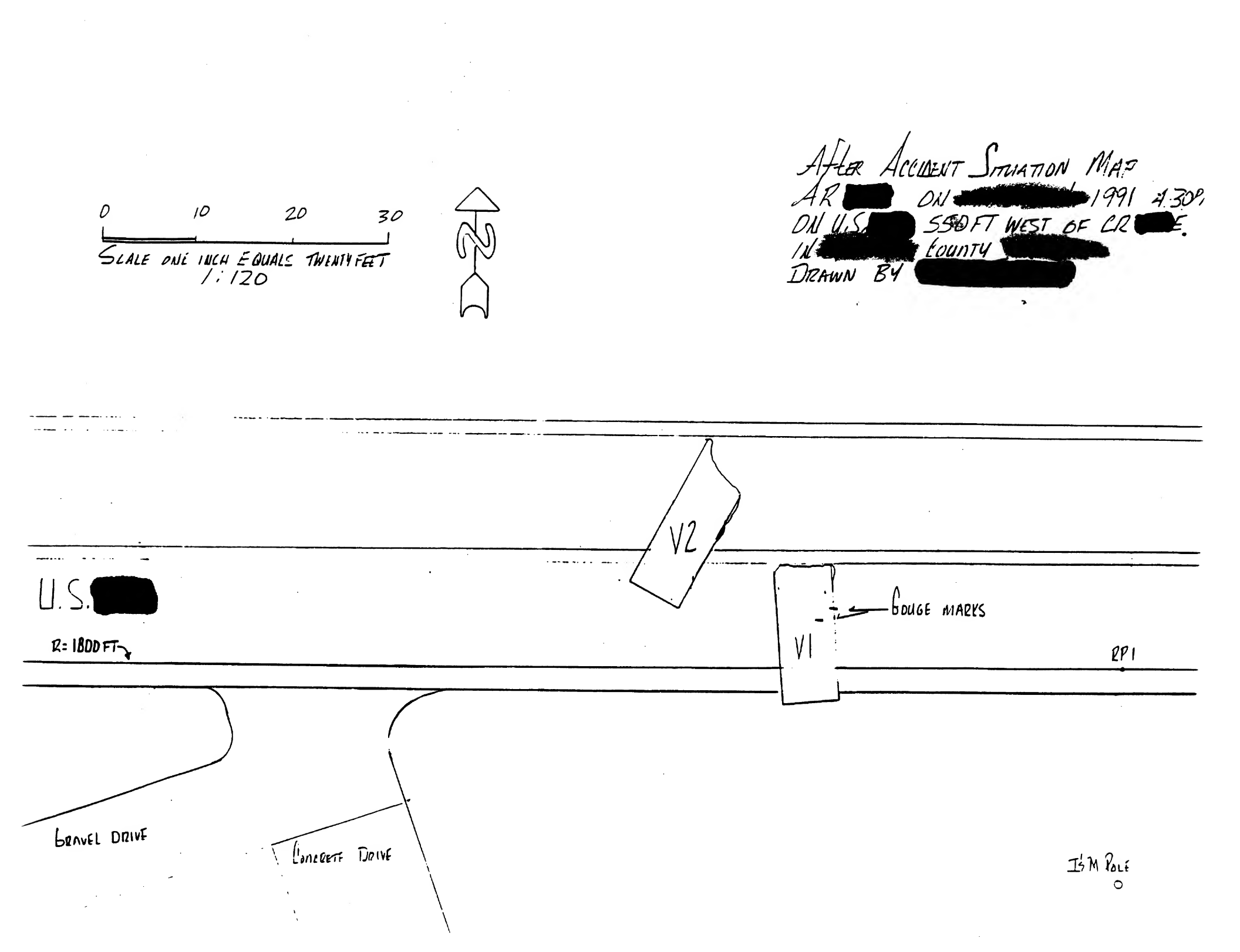
NARRATIVE

Vehicle #1 is a Lincoln Continental Sedan
Vehicle #2 is an Oldsmobile Cutlass Supreme. Two door.

Vehicle #1 was westbound on U.S. [redacted]
Vehicle #2 was eastbound on U.S. [redacted]

Vehicle #1 travelled left of center into the eastbound lane, striking vehicle #2 head on. Vehicle #1 rotated approximately 90 degrees coming to a stop in the eastbound lane. Vehicle #2 rotated approximately 270 degrees coming to a stop in the westbound lane. Both driver #2 and the passenger of Vehicle #2 were pronounced dead at the scene by Coroner [redacted]. The passenger in Vehicle #1 died several hours later at [redacted]. Results of medical legal examinations indicate that all three died as a direct result of injuries directly related to this accident.

On scene measurements were taken, using the coordinate method, by Captain [redacted], and Officers [redacted] and [redacted]. Still photographs were taken by [redacted]. Video photography by [redacted] The Scale Diagram was drawn by [redacted]


0 10 20 30
SCALE ONE INCH EQUALS TWENTY FEET
1:120
AFTER ACCIDENT SITUATION MAP
AR [redacted] ON [redacted] 1991 4:30P
ON U.S. [redacted] 550FT WEST OF CR [redacted] E.
IN [redacted] COUNTY [redacted]
DRAWN BY [redacted]
V2
V1
GOUGE MARKS
U.S. [redacted]
R=1800FT
RP1
GRAVEL DRIVE
CONCRETE DRIVE
I&M POLE

Page	Of	Case No
1	[redacted]	[redacted]

Offense: Accident Investigation AF[redacted]

Supervisory Correction No. 2 or 3:

Victim's Name (or if Business, list Incorporated Name): [redacted]

Responsible Party:

Victim's Address (Street, City, State, Zip): [redacted]

Home Phone: [redacted]

Business Phone:

Victim's Sex	Race	DOB	Age	SSN	Describe Injury	Place of Treatment
M	W	[redacted]	80	[redacted]	Internal/fractured leg	[redacted]

Month of Occurrence	Day	Year	Time AM/PM	Month Reported	Day	Year	Time AM/PM	IDACS	NCIC	
[redacted]	[redacted]	91	4:28 AM/PM	[redacted]	[redacted]	91	4:30 AM PM			[X] Rural [ ] Urban

Received by: PE [redacted]

Reported by (Name): [redacted]

Home Phone: [redacted]

Business Phone:

Exact Location of Offense: On US [redacted] South, 550 ft. west of CR [redacted] East

Was there a witness to the crime? [ ] No

If marked YES, a supplemental page listing witnesses must be included.

Suspect? [ ] Named [ ] Known [ ] Known Location [ ] Identified [ ] Previously Seen [ ] Description [ ] No

If marked YES, supplemental page required, giving information and explanation as to why person is listed.

Vehicle Identified? [ ] Suspect [ ] Stolen [ ] Recovered [ ] Other [ ] No

Veh. Make	Color	Yr.	Model	Body S.	Lic. Yr.	Lic. St.	Lic. No.	Where Held	VIN
Lincoln	gray	90	contin	4dr.	90	IN	[redacted]	NW	[redacted]

Significant M.O. or [ ] **Limited Opportunity to Commit the Crime?** [ ] No

Describe Significant M.O. and/or Limited Opp. Use Block Space in Narrative, if necessary.

Motive: N/A

Was there? [ ] Traceable Property [ ] Significant Physical Evidence? [ ] No

Scene Processing: [X] Photo [ ] Fingerprint [ ] Other

PE# Process Officer: 043

Forced Entry: Yes____ No____ **Describe force:** N/A

PROPERTY STOLEN: ID # Value

N/A

NARRATIVE: This officer was dispatched by DC radio to proceed to US [redacted] South, west of CR [redacted] East, ref. 10-50 fatality accident. The above listed victim was treated and admitted to [redacted] Hospital. See supplement for additional details.

[redacted] signature

Initial Officer Status: [X] Active [ ] Suspended [ ] Unfounded [X] Cleared

Recommend to Continue: [X] Field [ ] Investigation

Field Supervisor Status: [ ] Agree [ ] Disagree

Recommend to Continue: [ ] Field [ ] Investigation [ ] Suspend

Field Supervisor's Name, PE, Date: [redacted]

Investigative Coordinator: [ ] Field [ ] Status Investigation

Investigative Coordinator Initial, PE, Date, Status: [redacted]

Assigned Investigator Initial, PE, Date:

Page	Of	Case No
1	[redacted]	[redacted]

Offense: Death Investigation (Fatality Accident AR[redacted])

Supervisory Correction No. 2 or 3:

Victim's Name (or if Business, list Incorporated Name): [redacted]

Responsible Party:

Victim's Address (Street, City, State, Zip): [redacted]

Home Phone: [redacted]

Business Phone:

Victim's Sex	Race	DOB	Age	SSN	Describe Injury	Place of Treatment
F	W	[redacted]	81	[redacted]	Internal	[redacted] Hospital

Month of Occurrence	Day	Year	Time AM/PM	Month Reported	Day	Year	Time AM/PM	IDACS / NCIC	Rural / Urban
[redacted]	[redacted]	91	4:28 (PM)	[redacted]	[redacted]	91	4:30 (PM)		X Rural

Received by: PE [redacted]

Reported by (Name): [redacted]

Home Phone: [redacted]

Business Phone:

Exact Location of Offense: ON US [redacted] South, 550 ft. west of CR [redacted] East

Was there a witness to the crime? ☐ No

If marked YES, a supplemental page listing witnesses must be included.

Suspect? ☐ Named ☐ Known ☐ Known Location ☐ Identified ☐ Previously Seen ☐ Description ☐ No

If marked YES, supplemental page required, giving information and explanation as to why person is listed.

Vehicle Identified? ☐ Suspect ☐ Stolen ☐ Recovered ☐ Other ☐ No

Veh. Make	Color	Yr.	Model	Body S.	Lic. Yr.	Lic. St.	Lic. No.	Where Held	VIN
Lincoln	gray	90	Contin.	4dr.	90	IN	[redacted]	NW	[redacted]

☐ Significant M.O. or ☐ Limited Opportunity to Commit the Crime? ☐ No

Describe Significant M.O. and/or Limited Opp. Use Block Space in Narrative, if necessary.

Motive: N/A

Was there? ☐ Traceable Property ☐ Significant Physical Evidence? ☐ No

Scene Processing: ☒ Photo ☐ Fingerprint ☒ Other

PE# Process Officer: [redacted]

Forced Entry: Yes____ No____ Describe force N/A

PROPERTY STOLEN:
N/A

	ID #	Value

NARRATIVE: This officer was dispatched by DC radio to proceed to US [redacted], west of CR [redacted] East, ref. 10-50 fatality accident. The above listed victim died as a result of the accident. See supplement for additional details.

Initial Officer Status: ☒ Active ☐ Suspended ☐ Unfounded ☐ Cleared

Recommend to Continue: ☒ Field ☐ Investigation

[redacted]

Field Supervisor Status: ☐ Agree ☐ Disagree

Recommend to Continue: ☐ Field ☐ Investigation ☐ Suspend

Investigative Coordinator: ☐ Field ☐ Status Investigation

Investigative Coordinator Initial, PE, Date, Status: [redacted]

Assigned Investigator Initial, PE, Date:

Page	Of	Case No
1	[redacted]	[redacted]

Offense: Death Investigation (Fatality Accident AR[redacted])

Supervisory Correction No 2 or 3:

Victim's Name (or if Business, list Incorporated Name): [redacted]

Responsible Party:

Victim's Address (Street, City, State, Zip): [redacted]

Home Phone: [redacted]

Business Phone:

Victim's Sex	Race	DOB	Age	SSN	Describe Injury	Place of Treatment
F	W	[redacted]	39	[redacted]	Internal	[redacted] Hospital

Month of Occurrence	Day	Year	Time AM/PM	Month Reported	Day	Year	Time AM/PM	IDACS	NCIC	
[redacted]	[redacted]	91	4:28 AM PM	[redacted]	[redacted]	91	4:30 AM PM			☒ Rural ☐ Urban

Received by: PE [redacted] **Reported by (Name):** [redacted]

Home Phone: [redacted]

Business Phone:

Exact Location of Offense: ON US [redacted] South, 550 ft. west of CR [redacted] East

Was there a witness to the crime? ☐ No

If marked YES, a supplemental page listing witnesses must be included.

Suspect? ☐ Named ☐ Known ☐ Known Location ☐ Identified ☐ Previously Seen ☐ Description ☐ No

If marked YES, supplemental page required, giving information and explanation as to why person is listed.

Vehicle Identified? ☐ Suspect ☐ Stolen ☐ Recovered ☐ Other ☐ No

Veh. Make	Color	Yr.	Model	Body S.	Lic. Yr.	Lic. St.	Lic. No.	Where Held	VIN
Olds	grn	79	Cutlass	2dr.	91	IN	[redacted]	NW	[redacted]

☐ Significant M.O. or ☐ Limited Opportunity to Commit the Crime? ☐ No

Describe Significant M.O. and/or Limited Opp. Use Block Space in Narrative, if necessary.

Motive: N/A

Was there? ☐ Traceable Property ☐ Significant Physical Evidence? ☒ No

Scene Processing: ☒ Photo ☐ Fingerprint ☐ Other

PE# Process Officer: [redacted]

Forced Entry: Yes____ No____ **Describe force:** N/A

PROPERTY STOLEN:

	ID #	Value
N/A		

NARRATIVE: This officer was dispatched by DC radio to proceed to US [redacted] South, west of CR [redacted] East ref. 10-50 fatality accident. The above listed victim died as a result of the accident. See supp. for additional details.

[redacted]re

Initial Officer Status				Recommend to Continue		
☒ Active	☐ Suspended	☐ Unfounded	☒ Cleared	☒ Field	☐ Investigation	[redacted]
Field Supervisor Status		**Recommend to Continue**				[redacted] Supervisor's Name, PE, Date
☐ Agree	☐ Disagree	☐ Field	☐ Investigation	☐ Suspend		
Investigative Coordinator		**Investigative Coordinator Initial, PE, Date, Status**				**Assigned Investigator Initial, PE, Date**
☐ Field	☐ Status Investigation	[redacted]				

Page	Of	Case No
1	[redacted]	[redacted]

Offense: Death Investigation (Fatality Accident AR[redacted])

Supervisory Correction No. 2 or 3:

Victim's Name (or if Business, list Incorporated Name): [redacted]

Responsible Party: [redacted]

Victim's Address (Street, City, State, Zip): [redacted]

Home Phone: [redacted]

Business Phone:

Victim's Sex	Race	DOB	Age	SSN	Describe Injury	Place of Treatment
F	W	[redacted]	14	[redacted]	multipal internal	[redacted] Hospital

Month of Occurrence	Day	Year	Time AM/PM	Month Reported	Day	Year	Time AM/PM	IDACS / NCIC	Rural / Urban
[redacted]	[redacted]	91	4:28 AM/PM(M)	[redacted]	[redacted]	91	4:30 AM/(PM)	IDACS ____ NCIC ____	[X] Rural [ ] Urban

Received by: PE [redacted]

Reported by (Name): [redacted]

Home Phone: [redacted]

Business Phone:

Exact Location of Offense: On US [redacted] South, 550 ft. west of CR [redacted] East

Was there a witness to the crime? [ ] Yes [ ] No

If marked YES, a supplemental page listing witnesses must be included.

Suspect? [ ] Named [ ] Known [ ] Known Location [ ] Identified [ ] Previously Seen [ ] Description [ ] No

If marked YES, supplemental page required, giving information and explanation as to why person is listed.

Vehicle Identified? [ ] Suspect [ ] Stolen [ ] Recovered [ ] Other [ ] No

Veh. Make	Color	Yr.	Model	Body S.	Lic. Yr.	Lic. St.	Lic. No.	Where Held	VIN
Olds	grn	79	Cutlass	2dr.	91	IN	[redacted]	NW	[redacted]

Significant M.O. or Limited Opportunity to Commit the Crime? [ ] No

Describe Significant M.O. and/or Limited Opp. Use Block Space in Narrative, if necessary.

Motive: N/A

Was there? [ ] Traceable Property [ ] Significant Physical Evidence? [ ] No

Scene Processing: [X] Photo [ ] Fingerprint [ ] Other

PE# Process Officer: [redacted]

Forced Entry: Yes____ No____ Describe force N/A

PROPERTY STOLEN:

	ID #	Value
N/A		

NARRATIVE: This officer was dispatched by DC radio to proceed to US [redacted] South, west of CR [redacted] East, ref. 10-50 fatality accident. The above listed victim died as a result of the accident. See supplement for additional details.

Initial Officer Status: [X] Active [ ] Suspended [ ] Unfounded [ ] Cleared

Recommend to Continue: [X] Field [ ] Investigation

[redacted] ature

Field Supervisor Status: [ ] Agree [ ] Disagree

Recommend to Continue: [ ] Field [ ] Investigation [ ] Suspend

Investigative Coordinator: [ ] Field [ ] Status Investigation

Investigative Coordinator Initial, PE, Date, Status: [redacted]

Assigned Investigator Initial, PE, Date:

Appendix B:

CRASHPC Program Results

BEST AVAILABLE COPY

US Department of Transportation
National Highway Traffic Safety Administration

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

CRASHPC PROGRAM SUMMARY

Identifying Title

10	9103	01	[redacted] 91
Primary Sampling Unit	Case No.–Stratum	Accident Event Sequence No.	Date (month, day, year) of Run

CRASHPC Vehicle Identification

	Year	Make	Model	NASS Veh. No.
Vehicle 1	1990	LINCOLN	CONTINENTAL SIGNATURE	01
Vehicle 2	1979	OLDSMOBILE	CUTLASS SUPREME	02

GENERAL INFORMATION

	VEHICLE 1	VEHICLE 2
Size	3	1
Weight	3633 + 183/169/343 + 0 = 3976	3298 + 190/180/320 + 30 = 3648
	Curb + Occupant(s) + Cargo	Curb + Occupant(s) + Cargo
CDC	11FDEW4	12FDEW4
PDOF	-20	-10
Stiffness	3	3

SCENE INFORMATION

Rest and Impact Positions [ ] No, ***Go To Damage Information*** [ ] Yes

	VEHICLE 1	VEHICLE 2
Rest Position		
X	———.—	———.—
Y	———.—	———.—
PSI	———.—	———.—
Impact Position		
X	———.—	———.—
Y	———.—	———.—
PSI	———.—	———.—
Slip Angle	———	———

VEHICLE MOTION

Sustained Contact [ ] No [ ] Yes

	VEHICLE 1	VEHICLE 2
Skidding	[ ] No [ ] Yes	[ ] No [ ] Yes
Skidding Stop Before Rest	[ ] No [ ] Yes	[ ] No [ ] Yes
End-of-Skidding Position		
X	———.—	———.—
Y	———.—	———.—
PSI	———.—	———.—
Curved Path	[ ] No [ ] Yes	[ ] No [ ] Yes
Point on Path		
X	———.—	———.—
Y	———.—	———.—
Rotation Direction	[ ] None [ ] CW [ ] CCW	[ ] None [ ] CW [ ] CCW
Rotation > 360°	[ ] No [ ] Yes	[ ] No [ ] Yes

National Accident Sampling System—Crashworthiness Data System:CrashPC Program Summary

FRICTION INFORMATION

Coefficient of Friction .___

Rolling Resistance Option ___

Vehicle 1 Rolling Resistance

LF ___.___ RF ___.___

LR ___.___ RR ___.___

Vehicle 2 Rolling Resistance

LF ___.___ RF ___.___

LR ___.___ RR ___.___

TRAJECTORY INFORMATION

Trajectory Data [ ]No [ ]Yes

If No, Go To Damage Information

Vehicle 1 Steer Angles

LF ___ RF ___

LR ___ RR ___

Vehicle 2 Steer Angles

LF ___ RF ___

LR ___ RR ___

Terrain Boundary [ ]No [ ]Yes

First Point

X ___.___ Y ___.___

Second Point

X ___.___ Y ___.___

Secondary Friction Coefficient .___

DAMAGE INFORMATION

	VEHICLE 1	VEHICLE 2
Damage Length	59.50	65.50
Crush Depths C1	17.00	8.50
C2	27.25	25.50
C3	33.50	34.00
C4	36.00	39.00
C5	32.75	40.50
C6	30.50	46.00
Damage Offset	± 0.00	± 0.00

IF THIS COMMON IMPACT WAS WITH A MOTOR VEHICLE *NOT IN TRANSPORT*, FILL IN THE INFORMATION BELOW.

Model Year: _____

Make: _____

Model: _____

VIN: _____

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate vehicle damage sketch and dimensions to the Form.

SUMMARY OF CRASHPC RESULTS (USING SPINOUT)

TRC/IU Case 10 91-03: '90 Lincoln Continental v. '79 Oldsmobile Cutlass

SPEED CHANGE (DAMAGE)		TOTAL (MPH)	LONG. (MPH)	LAT. (MPH)	ANG. (DEG)
	VEH #1	38.6	-36.3	13.2	-20.0
	VEH #2	42.1	-41.5	-7.3	10.0

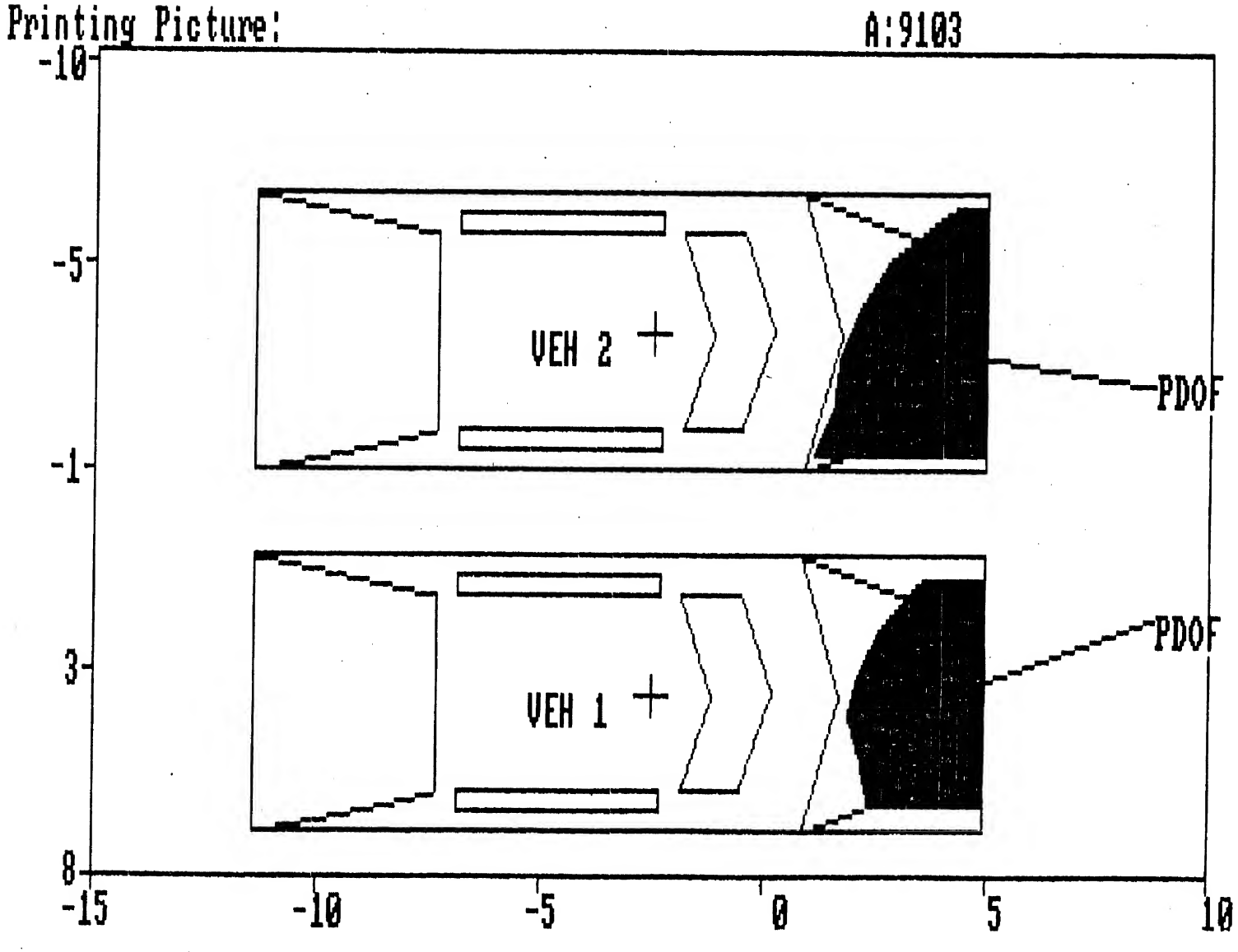
ENERGY DISSIPATED BY DAMAGE VEH#1:210834.0 FT-LB VEH#2:252974.8 FT-LB

SUMMARY OF DAMAGE DATA (* INDICATES DEFAULT VALUE)

VEHICLE # 1			VEHICLE # 2		
TYPE	CATEGORY 3		TYPE	CATEGORY 3	
STIFFNESS	CATEGORY 3		STIFFNESS	CATEGORY 3	
WEIGHT	3976.0 LBS.		WEIGHT	3648.0 LBS.	
CDC	11FDEW4		CDC	12FDEW4	
L	59.5 IN.		L	65.5 IN.	
C1	17.0 IN.		C1	8.5 IN.	
C2	27.3 IN.		C2	25.5 IN.	
C3	33.5 IN.		C3	34.0 IN.	
C4	36.0 IN.		C4	39.0 IN.	
C5	32.8 IN.		C5	40.5 IN.	
C6	30.5 IN.		C6	46.0 IN.	
D	.0		D	.0	
RHO	1.00	*	RHO	1.00	*
ANG	-20.0 DEG.		ANG	10.0 DEG.	
D'	1.9 IN.		D'	5.2 IN.	

DIMENSIONS AND INERTIAL PROPERTIES

A1	=	51.3	IN.	A2	=	51.3	IN.
B1	=	55.5	IN.	B2	=	55.5	IN.
TR1	=	58.9	IN.	TR2	=	58.9	IN.
I1	=	34363.6	LB-SEC**2-IN	I2	=	31528.7	LB-SEC**2-IN
M1	=	10.338	LB-SEC**2/IN	M2	=	9.485	LB-SEC**2/IN
XF1	=	89.8	IN.	XF2	=	89.8	IN.
XR1	=	-106.4	IN.	XR2	=	-106.4	IN.
YS1	=	36.3	IN.	YS2	=	36.3	IN.


Printing Picture:
A:9103
-10
-5
-1
3
8
-15
-10
-5
0
5
10
VEH 2
PDOF
VEH 1
PDOF
DAMAGE DESCRIPTION

Appendix C:

NASS Accident Form

ACCIDENT FORM

US Department of Transportation
National Highway Traffic Safety Administration

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 1 0
2. Case Number – Stratum: 9 1 0 3

IDENTIFICATION

3. Number of General Vehicle Forms Submitted: 0 2
4. Date of Accident (Month, Day, Year): [redacted] 9 1
5. Time of Accident: 1 6 2 8

   Code reported military time of accident.

   NOTE: Midnight – 2400
   Unknown – 9999

SPECIAL STUDIES INDICATORS

Check (✓) each special study (SS12-SS16 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. ___SS12 Not Active: 0
7. ___SS13 Not Active: 0
8. ___SS14 _____: 0
9. ___SS15 _____: 0
10. ___SS16 _____: 0

NUMBER OF EVENTS

11. Number of Recorded Events in This Accident: 0 1

    Code the number of events which occurred in this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.

Accident Event Sequence Number	Vehicle Number	Class of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class of Vehicle	General Area of Damage
12. 0 1	13. 0 1	14. 0 3	15. F	16. 0 2	17. 0 3	18. F
19. 0 2	20. ___ ___	21. ___ ___	22. ___	23. ___ ___	24. ___ ___	25. ___
26. 0 3	27. ___ ___	28. ___ ___	29. ___	30. ___ ___	31. ___ ___	32. ___
33. 0 4	34. ___ ___	35. ___ ___	36. ___	37. ___ ___	38. ___ ___	39. ___
40. 0 5	41. ___ ___	42. ___ ___	43. ___	44. ___ ___	45. ___ ___	46. ___

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENTS SUPPLEMENT

Appendix D:

NASS Vehicle Forms: Case Vehicle

U.S. Department of Transportation
National Highway Traffic Safety Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 01

VEHICLE IDENTIFICATION

4. Vehicle Model Year: 90
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): 13
   LINCOLN
   Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): 005
   CONTINENTAL SIGNATURE
   Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual.
   (999) Unknown

7. Body Type: 04
   Note: Applicable codes are found on the back of this page.

8. Vehicle Identification Number
   1LNLM984ILY[redacted]
   Left justify; Slash zeros and letter Z (Ø and Z)
   No VIN–Code all zeros
   Unknown–Code all nine's

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition: 1
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. Police Reported Travel Speed: 99
    Code to the nearest mph (NOTE: 00 means less than 0.5 mph)
    (97) 96.5 mph and above
    (99) Unknown

11. Police Reported Alcohol Presence: 0
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

Note: See variables 37 through 55 (Page 4) for Information on Other Drugs

12. Alcohol Test Result for Driver: 00
    Code actual value (decimal implied before first digit–0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown
    Source: POLICE REPORT

ACCIDENT RELATED

13. Speed Limit: 50
    (00) No statutory limit
    Code posted or statutory speed limit
    (99) Unknown

14. Attempted Avoidance Maneuver: 99
    (00) No impact
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify): _____
    (99) Unknown

15. Accident Type: 52
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify): _____
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******

OCCUPANT RELATED

16. Driver Presence in Vehicle: 1
(0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle: 02
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

18. Number of Occupant Forms Submitted: 02

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight: 3600
3633 Code weight to nearest 100 pounds.
(010) Less than 1050 pounds
(135) 13,500 lbs or more
(999) Unknown

Source: [redacted]

20. Vehicle Cargo Weight: 9900
99 Code weight to nearest 100 pounds.
(00) Less than 50 pounds
(97) 9,650 lbs or more
(99) Unknown

RECONSTRUCTION DATA

21. Towed Trailing Unit: 0
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

22. Documentation of Trajectory Data for This Vehicle: 0
(0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (for Highest Delta V): 0
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify): _____
(9) Unknown

24. Rollover: 0
(0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)
(1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify): _____

(5) Rollover—end-over-end (i.e., primarily about the lateral axis)
(9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this vehicle): 0

26. Rear Override/Underride (this vehicle): 0

(0) No override/underride, or not an end-to-end impact

Override (see specific CDC)
(1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify): _____

Underride (see specific CDC)
(4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify): _____

(7) Medium/heavy truck or bus override
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle for This Vehicle: 290

28. Heading Angle for Other Vehicle: 090

29. Basis for Total Delta V (Highest) 1

Delta V Calculated
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

Delta V Not Calculated
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction techniques, regardless of adequacy of damage data.

(6) All vehicles and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

	Secondary	Highest
30. Total Delta V		39
38.6 Nearest mph	____	

(NOTE: 00 means less than 0.5 mph)
(97) 96.5 mph and above
(99) Unknown

31. Longitudinal Component of Delta V		+036
−36.3 Nearest mph	____	

(NOTE: __00 means greater than −0.5 and less than +0.5 mph)
(±97) ±96.5 mph and above
(__ 99) Unknown

	Secondary	Highest
32. Lateral Component of Delta V		E13
13.2 Nearest mph	____	

(NOTE: __00 means greater than −0.5 and less than +0.5 mph)
(±97) ±96.5 mph and above
(__ 99) Unknown

33. Energy Absorption 21,800

210834.0 Nearest 100 foot-lbs ____

(NOTE: 0000 means less than 50 Foot-Lbs)
(9997) 999,650 foot-lbs or more
(9999) Unknown

34. Confidence in Reconstruction Program Results (for Highest Delta V) 1
(0) No reconstruction
(1) Collision fits model—results appear reasonable
(2) Collision fits model—results appear high
(3) Collision fits model—results appear low
(4) Borderline reconstruction—results appear reasonable

35. Type of Vehicle Inspection 1
(0) No Inspection
(1) Complete inspection
(2) Partial inspection (specify):

_____

36. Is this an AOPS Vehicle? 1
(0) No
(1) Yes

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [X] NO
IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence ___0___
    (0) No other drugs present
    (1) Yes (other drug present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

38. Police Reported Observation/Perception Test Type For Driver ___0___
    (0) No observation/perception test given
    (1) Drug recognition technician (DRT) determination
    (2) Behavioral
    (3) Other physical observation/perception determination (specify):

    _____

    (7) Other observation/perception test
    (8) No driver present

    _____

    (9) Unknown if observation/perception test given

39. Other Drug Specimen Test Type For Driver ___0___
    (0) No specimen test given
    (1) Blood test
    (2) Urine test
    (3) Other specimen tests (specify):

    _____

    (7) Unspecified specimen test
    (8) No driver present
    (9) Unknown if specimen test given

OTHER DRUGS TEST RESULTS FOR DRIVER

	Observation/ Perception Test Results	Specimen Test Results
Narcotic Drug	40. 0	41. [illegible]
Depressant Drug	42. 0	43. [illegible]
Stimulant Drug	44. 0	45. [illegible]
Hallucinogen Drug	46. 0	47. [illegible]
Cannabinoid Drug	48. 0	49. [illegible]
Phencyclidine (PCP)Drug	50. 0	51. [illegible]
Inhalant Drug	52. 0	53. [illegible]
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. 0	55. [illegible]

Codes For Observation/Perception Test Results

(0) No observation/perception test given
(1) Passed observation/perception test
(2) Failed observation/perception test
(3) Observation/perception test given—results unknown
(8) No driver present
(9) Unknown if observation/perception test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(8) No driver present
(9) Unknown if specimen test given

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

U.S. Department of Transportation
National Highway Traffic Safety Administration

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10	3. Vehicle Number: 01
2. Case Number—Stratum: 9103	

VEHICLE IDENTIFICATION

VIN 1LNLM984ILY[redacted] Model Year 1990

Vehicle Make (specify): LINCOLN Vehicle Model (specify): CONTINENTAL

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
1	BUMPER CORNER TO BUMPER CORNER	BUMPER CORNER TO BUMPER CORNER

CRUSH PROFILE

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of C-Measurements	Direct Damage		Field L	C_1	C_2	C_3	C_4	C_5	C_6	±D
		Width (CDC)	Max Crush								
1	MID-BUMPER	55	37	54	23.5	30.5	34.5	37.0	36.0	37.0	0
	FREE SPACE				6.5	3.25	1.0	1.0	3.25	6.5	
	ADJUSTED VALUES		36		17.0	27.25	33.5	36.0	32.75	30.5	

HS Form 435A (Rev. 1/91)

National Accident Sampling System – Crashworthiness Data System: Exterior Vehicle Form 2e

VEHICLE DAMAGE SKETCH

TIRE – WHEEL DAMAGE

a. Rotation physically restricted		b. Tire deflated	
RF	1	RF	2
LF	2	LF	2
RR	2	RR	2
LR	2	LR	1

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☒ Automatic

ORIGINAL SPECIFICATIONS

Wheelbase	109.0
Overall Length	205.1
Maximum Width	72.7
Curb Weight	3663
Average Track	61.7
Front Overhang	45.0
Rear Overhang	51.1
Engine Size: cyl./ displ.	V6/3.8L
Undeformed End Width	59.5

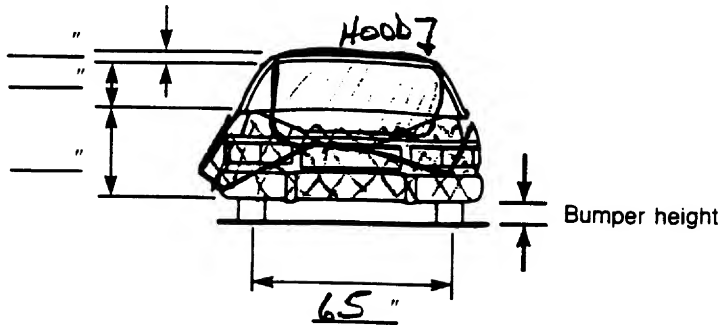
WHEEL STEER ANGLES
(For locked front wheels or displaced rear axles only)

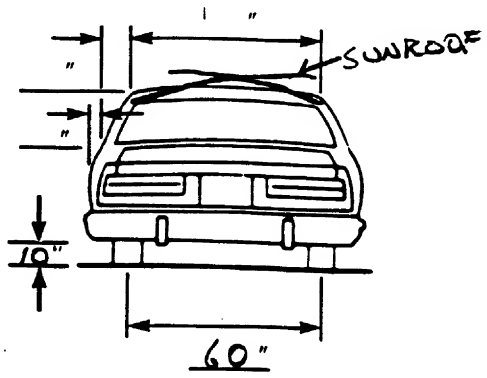
RF ⊖ 05 °
LF ± ___ °
RR ± ___ °
LR ± ___ °
Within ±5 degrees

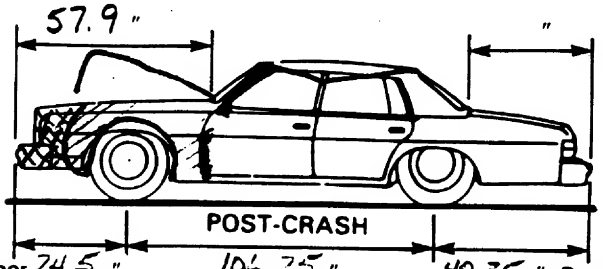
DRIVE WHEELS

☐ FWD ☒ RWD ☐ 4WD

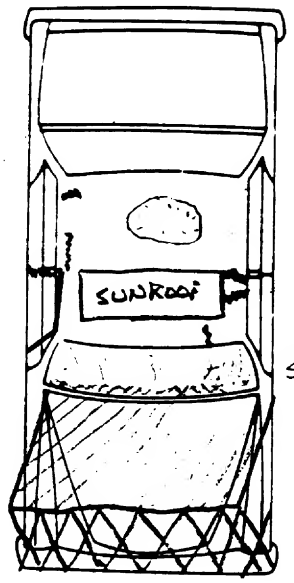
Approximate Cargo Weight UNKNOWN

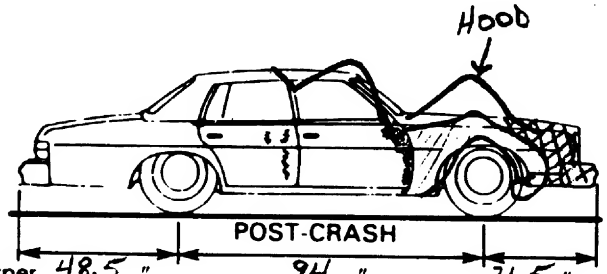






Bumper corner 24.5" 106.25" 48.75" Bumper corner
Stringline 48.0" 50.75" Stringline





Bumper corner 48.5" 94" 21.5" Bumper corner
Stringline 50.75" 60.75" Stringline

NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewall, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.
Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

01-30—Vehicle Number

Noncollision
- (31) Overturn—rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify): _____
- (35) Noncollision injury
- (38) Other noncollision (specify): _____
- (39) Noncollision—details unknown

Collision with Fixed Object
- (41) Tree (≤4 inches in diameter)
- (42) Tree (>4 inches in diameter)
- (43) Shrubbery or bush
- (44) Embankment
- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
- (50) Pole or post (≤4 inches in diameter)
- (51) Pole or post (>4 but ≤12 inches in diameter)
- (52) Pole or post (>12 inches in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (specify): _____
- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or Culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____
- (69) Unknown fixed object

Collision With Nonfixed Object
- (71) Motor vehicle not in transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance (specify): _____
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (88) Other nonfixed object (specify): _____
- (89) Unknown nonfixed object

- (98) Other event (specify): _____
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	02	-20	00	F	D	E	W	04

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. 01	5. 02	6. 11	7. F	8. D	9. E	10. W	11. 04

Second Highest Delta "V"

12. — —	13. — —	14. — —	15. —	16. —	17. —	18. —	19. — —

CRUSH PROFILE

(The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. ALL MEASUREMENTS ARE IN INCHES.)

HIGHEST DELTA "V"

20. L	21. C1	C2	C3	C4	C5	C6	22. + − D
60	12	22	34	36	33	31	+ − 000

Second Highest Delta "V"

23. L	24. C1	C2	C3	C4	C5	C6	25. + − D
— — —	— —	— —	— —	— —	— —	— —	+ − — — — —

26. Are CDCs Documented but Not Coded on The Automated File? (0) No (1) Yes — 0	27. Researcher's Assessment of Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown — 1	28. Original Wheelbase 109 Code to the nearest tenth of an inch (9999) Unknown — 1090

29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? 0
(0) No post manufacturer modifications
(1) Yes - post manufacturer modifications
(specify): _____
_____
_____
(Include photograph of CERTIFICATION PLACARD in case report)
(9) Unknown if vehicle is modified

30. Fire Occurrence 0
(0) No fire

Yes, fire occurred
(1) Minor
(2) Major
(9) Unknown

31. Origin of Fire 0
(0) No fire
(1) Vehicle exterior (front, side, back, top)
(2) Exhaust system
(3) Fuel tank (and other fuel retention system parts)
(4) Engine compartment
(5) Cargo/trunk compartment
(6) Instrument panel
(7) Passenger compartment area
(8) Other location (specify):
_____
(9) Unknown

32. Type of Fuel Tank 1
(0) No fuel tank (electrical vehicle)
(1) Metallic
(2) Non-metallic
(9) Unknown

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***
(I.E., GV09 = 0 OR 9), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.

U.S. Department of Transportation
National Highway Traffic Safety Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 01

INTEGRITY

4. Passenger Compartment Integrity 02

(00) No integrity loss

Yes, Integrity Was Lost Through
(01) Windshield
(02) Door (side)
(03) Door/hatch (back door)
(04) Roof
(05) Roof glass
(06) Side window
(07) Rear window (backlight)
(08) Roof and roof glass
(09) Windshield and door (side)
(10) Windshield and roof
(11) Side and rear window (side window and backlight)
(12) Windshield and side window
(13) Door and side window
(98) Other combination of above (specify): _____
(99) Unknown

Door, Tailgate Or Hatch Opening

5. LF 1 6. RF 2 7. LR 1 8. RR 1 9. TG/H 0

(0) No door/gate/hatch
(1) Door/gate/hatch remained closed and operational
(2) Door/gate/hatch came open during collision
(3) Door/gate/hatch jammed shut
(8) Other (specify): _____
(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then Code 0.

10. LF 0 11. RF 2 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate, or Hatch Came Open During Collision
(1) Door operational (no damage)
(2) Latch/striker failure due to damage
(3) Hinge failure due to damage
(4) Door structure failure due to damage
(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
(6) Latch/striker and hinge failure due to damage
(8) Other failure (specify): _____
(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 2 16. LF 0 17. RF 0 18. LR 0 19. RR 0
20. BL 0 21. Roof 0 22. Other 0

(0) No glazing damage from impact forces
(2) Glazing in place and cracked from impact forces
(3) Glazing in place and holed from impact forces
(4) Glazing out-of-place (cracked or not) and not holed from impact forces
(5) Glazing out-of-place and holed from impact forces
(6) Glazing disintegrated from impact forces
(7) Glazing removed prior to accident
(8) No glazing
(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing
(1) Glazing contacted by occupant but no glazing damage
(2) Glazing in place and cracked by occupant contact
(3) Glazing in place and holed by occupant contact
(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
(5) Glazing out-of-place by occupant contact and holed by occupant contact
(6) Glazing disintegrated by occupant contact
(9) Unknown if contacted by occupant

If No Glazing Damage ***And*** No Occupant Contact or No Glazing, Then Code IV 31 Through IV 46 As 0

Type of Window/Windshield Glazing

31. WS 9 32. LF 0 33. RF 0 34. LR 0 35. RR 0
36. BL 0 37. Roof 0 38. Other 0

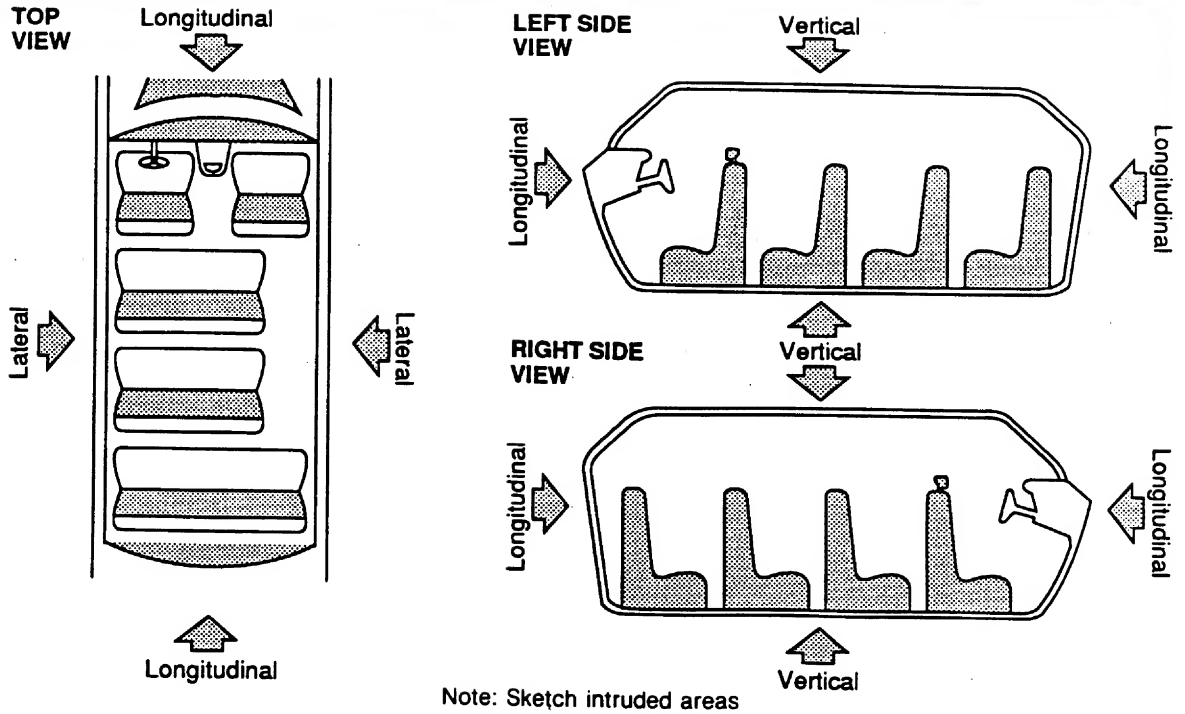
(0) No glazing contact and no damage, or no glazing
(1) AS-1 – Laminated
(2) AS-2 – Tempered
(3) AS-3 – Tempered-tinted
(4) AS-14 – Glass/Plastic
(8) Other (specify): _____
(9) Unknown

Window Precrash Glazing Status

39. WS 1 40. LF 0 41. RF 0 42. LR 0 43. RR 0
44. BL 0 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing
(1) Fixed
(2) Closed
(3) Partially opened
(4) Fully opened
(9) Unknown

INTRUSION WORK SHEET



Note: Sketch intruded areas

LOCATION OF INTRUSION	INTRUDED COMPONENT	COMPARISION VALUE	–	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
11	TOE PAN	52.0"	–	51.0"	=	1.0"	LONG
	INSTRUMENT PANEL	27.5"	–	27.0"	=	0.5"	LONG
	WINDSHIELD	41.0"	–	39.0"	=	2.0"	LONG
	WINDSHIELD HEADER	26.5"	–	26.0"	=	0.5"	LONG
	"A" PILLAR	33.5"	–	32.5"	=	1.0"	LONG
12	TOE PAN	41.0"	–	39.5"	=	1.5"	LONG
	INSTRUMENT PANEL	30.5"	–	28.5"	=	2.0"	LONG
	WINDSHIELD	41.0"	–	39.0"	=	2.0"	LONG
	WINDSHIELD HEADER	27.5"	–	26.5"	=	1.0"	LONG
13	TOE PAN	41.0"	–	38.0"	=	3.0"	LONG
	INSTRUMENT PANEL	29.5"	–	26.5"	=	3.0"	LONG
	WINDSHIELD	41.0"	–	35.0"	=	6.0"	LONG
	WINDSHIELD HEADER	27.5"	–	26.5"	=	1.0"	LONG
	"A" PILLAR	33.5"	–	31.5"	=	2.0"	LONG
21	SEAT BACK	24.5"	–	24.0"	=	0.5"	LONG

Document no more than the 15 most severe intrusions

22	SEAT BACK	24.5"	22.0"	2.5"	LONG
23	SEAT BACK	24.5"	24.0"	0.5"	LONG

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV 47-IV 86 blank.

	Location of Intrusion		Intruding Component		Magnitude of Intrusion	Dominant Crush Direction
1st	47. 1	3	48. 1	4	49. 3	50. 2
2nd	51. 1	3	52. 0	5	53. 2	54. 2
3rd	55. 1	3	56. 0	4	57. 2	58. 2
4th	59. 2	2	60. 2	0	61. 1	62. 2
5th	63. 1	1	64. 1	4	65. 1	66. 2
6th	67. 1	2	68. 0	3	69. 1	70. 2
7th	71. 1	2	72. 1	4	73. 1	74. 2
8th	75. 1	3	76. 0	6	77. 1	78. 2
9th	79. 1	2	80. 0	5	81. 1	82. 2
10th	83. 1	1	84. 0	5	85. 1	86. 2

LOCATION OF INTRUSION

Front Seat
- (11) Left
- (12) Middle
- (13) Right

Second Seat
- (21) Left
- (22) Middle
- (23) Right

Third Seat
- (31) Left
- (32) Middle
- (33) Right

Fourth Seat
- (41) Left
- (42) Middle
- (43) Right

- (97) Catastrophic
- (98) Other enclosed area (specify): _____
- (99) Unknown

INTRUDING COMPONENT

Interior Components
- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify): _____
- (27) Side panel - forward of the A-pillar
- (28) Side panel - rear of the A-pillar

Exterior Components
- (30) Hood
- (31) Outside surface of vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 1 inch but < 3 inches
- (2) ≥ 3 inches but < 6 inches
- (3) ≥ 6 inches but < 12 inches
- (4) ≥ 12 inches but < 18 inches
- (5) ≥ 18 inches but < 24 inches
- (6) ≥ 24 inches
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING COLUMN

87. Steering Column Type 2
(1) Fixed column
(2) Tilt column
(3) Telescoping column
(4) Tilt and telescoping column
(8) Other column type (specify): _____
(9) Unknown

88. Blank X X
(This variable is left blank so that numbering consistency can be maintained with the 1988–90 CDS.

89. Blank X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988–90 CDS.

90. Blank X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988–90 CDS.

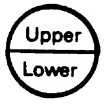
91. Blank X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988–90 CDS.

92. Steering Rim/Spoke Deformation 0
_____ Code actual measured deformation to the nearest inch.
(0) No steering rim deformation
(1-5) Actual measured value
(6) 6 inches or more
(8) Observed deformation cannot be measured
(9) Unknown

93. Location of Steering Rim/Spoke Deformation 0 0
(00) No steering rim deformation

Quarter Sections
(01) Section A
(02) Section B
(03) Section C
(04) Section D

Half Sections
(05) Upper half of rim/spoke
(06) Lower half of rim/spoke
(07) Left half of rim/spoke
(08) Right half of rim/spoke



(09) Complete steering wheel collapse
(10) Undetermined location
(99) Unknown

INSTRUMENT PANEL

94. Odometer Reading 999,000
999 miles – Code mileage to the nearest 1,000 miles
(000) No odometer
(001) Less than 1,500 miles
(300) 299,500 miles or more
(999) Unknown
Source: _____

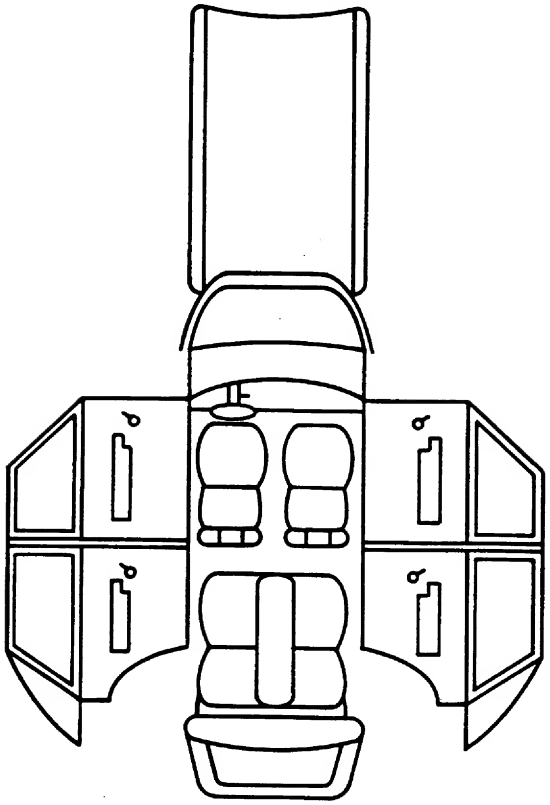
95. Instrument Panel Damage from Occupant Contact? 1
(0) No
(1) Yes
(9) Unknown

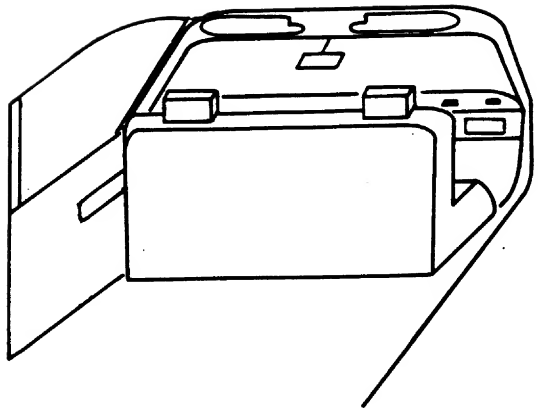
96. Knee Bolsters Deformed from Occupant Contact? 1
(0) No
(1) Yes
(8) Not present
(9) Unknown

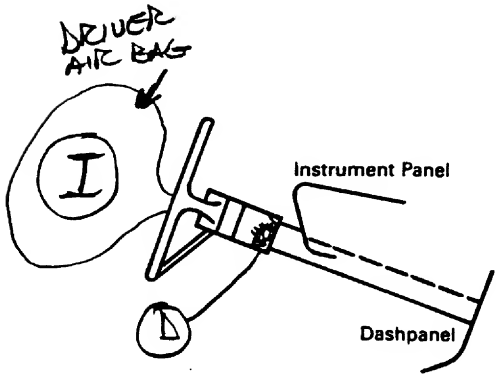
97. Did Glove Compartment Door Open During Collision(s)? 1
(0) No
(1) Yes
(8) Not present
(9) Unknown

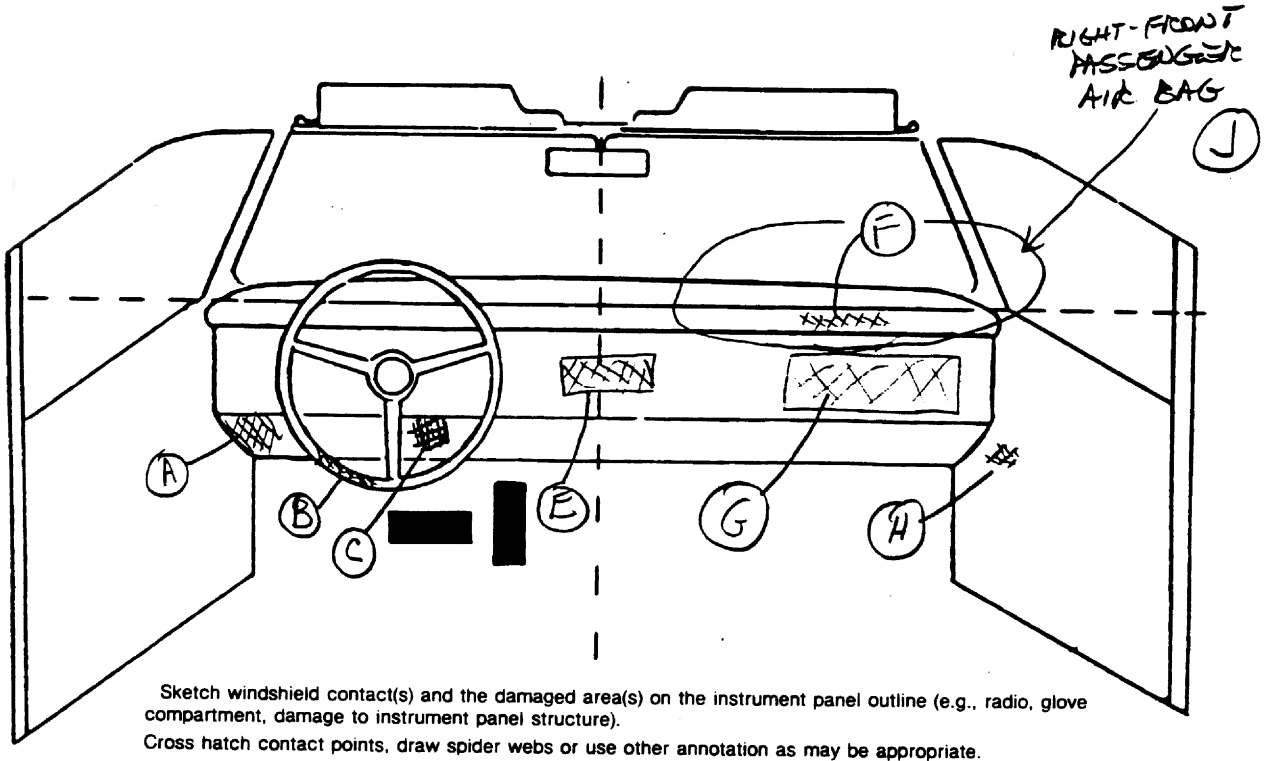
VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment









Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	13	01	KNEE	INDENTATION	1
B	04	01	ABDOMEN	CLOTH IMPRESSION	1
C	13	01	KNEE	INDENTATION	1
D	07	01	(R) LEG	CRACKED SHROUD	2
E	10	UNKNOWN	UNKNOWN	SKIN TRANSFERS	1
F	11	02	UNKNOWN	SKIN TRANSFER	1
G	12	02	KNEES	INDENTATION	1
H	30	02	UNKNOWN	SCRAPE	2
I	45	01	FACE	BLOOD	1
J	45	02	FACE	BLOOD	1
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT
- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror,or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): _____

LEFT SIDE
- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (27) Other left side object (specify): _____

RIGHT SIDE
- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): _____
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (37) Other right side object (specify): _____

INTERIOR
- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): _____
- (47) Interior loose objects
- (48) Child safety seat (specify): _____
- (49) Other interior object (specify): _____

ROOF
- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR
- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR
- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

CONFIDENCE LEVEL OF CONTACT POINT
- (1) Certain
- (2) Probable
- (3) Possible
- (4) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
FIRST	Availability/Function	/	/
	Deployment	/	/
	Failure	/	/

Air Bag System Availability/Function
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

Air Bag System Deployment
(0) Not equipped/not available
(1) Air bag deployed during accident
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(9) Unknown

Did Air Bag System Fail?
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

AUTOMATIC BELTS

		Left	Right
FIRST	Availability/Function		
	Use		
	Type		
	Proper Use		
	Failure Modes		

Automatic (Passive) Belt System Availability/Function
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

Automatic (Passive) Belt System Use
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)
(3) Automatic belt use unknown
(9) Unknown

Automatic (Passive) Belt System Type
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

Proper Use of Automatic (Passive) Belt System
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of automatic belt system (specify): _____
(9) Unknown

Automatic (Passive) Belt Failure Modes During Accident
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify): _____
(9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data **for each seat position** in the vehicle. The attributes for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	3	4
	Use	04	00	04
	Failure Modes	1	0	1
SECOND	Availability	4	3	4
	Use	00	00	00
	Failure Modes	0	0	0
THIRD	Availability			
	Use			
	Failure Modes			
OTHER	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

(0) Not available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available — type unknown
(8) Other belt (specify):

_____

(9) Unknown

Manual (Active) Belt System Use

(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify):

_____

(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used — type unknown

_____

(08) Other belt used (specify):

_____

(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat — type unknown
(18) Other belt used with child safety seat (specify):

_____

(99) Unknown if belt used

Manual (Active) Belt Failure Modes During Accident

(0) No manual belt used or not available
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):

_____

(6) Broken retractor
(7) Combination of above (specify):

_____

(8) Other manual belt failure (specify):

_____

(9) Unknown

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for **each seat position** in the vehicle. The attributes for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	06	06	06
	Seat Performance	1	1	1
SECOND	Head Restraint Type/Damage	1	1	1
	Seat Type	03	03	03
	Seat Performance	8	8	8
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			

Head Restraint Type/Damage by Occupant at This Occupant Position

(0) No head restraints
(1) Integral — no damage
(2) Integral — damaged during accident
(3) Adjustable — no damage
(4) Adjustable — damaged during accident
(5) Add-on — no damage
(6) Add-on — damaged during accident
(8) Other (specify): _____
(9) Unknown

Seat Type (This Occupant Position)

(00) No seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., van type)
(09) Other seat type (specify): _____
(99) Unknown

Seat Performance (This Occupant Position)

(0) No seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks failed
(4) Seat tracks/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify):
_____
_____
(7) Combination of above (specify):
(8) Other (specify):
TRUNK CONTENTS BOWED SEAT BACK
(9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E. UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indications that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [✓] Yes [ ]

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown

Ejection Area
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown

Ejection Medium
(1) Door hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify):

(5) Integral structure
(8) Other medium (specify):

(9) Unknown

Medium Status (Immediately Prior to Impact)
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

ENTRAPMENT No [✗] Yes [ ]

Describe entrapment mechanism:

Component(s):

(Note in vehicle interior diagram)

Appendix E:

NASS Vehicle Forms: Vehicle #2

U.S. Department of Transportation
National Highway Traffic Safety Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 02

VEHICLE IDENTIFICATION

4. **Vehicle Model Year**: 79
   Code the last two digits of the model year
   (99) Unknown

5. **Vehicle Make (specify)**: 21
   OLDSMOBILE
   Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual.
   (99) Unknown

6. **Vehicle Model (specify)**: 001
   CUTLASS
   Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual.
   (999) Unknown

7. **Body Type**: 02
   Note: Applicable codes are found on the back of this page.

8. **Vehicle Identification Number**
   3R47E9M[redacted]
   Left justify; Slash zeros and letter Z (Ø and Ƶ)
   No VIN–Code all zeros
   Unknown–Code all nine's

OFFICIAL RECORDS

9. **Police Reported Vehicle Disposition**: 1
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. **Police Reported Travel Speed**: 99
    Code to the nearest mph (NOTE: 00 means less than 0.5 mph)
    (97) 96.5 mph and above
    (99) Unknown

11. **Police Reported Alcohol Presence**: 0
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

Note: See variables 37 through 55 (Page 4) for Information on Other Drugs

12. **Alcohol Test Result for Driver**: 00
    Code actual value (decimal implied before first digit–0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown
    Source: POLICE REPORT

ACCIDENT RELATED

13. **Speed Limit**: 50
    (00) No statutory limit
    Code posted or statutory speed limit
    (99) Unknown

14. **Attempted Avoidance Maneuver**: 99
    (00) No impact
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify):
    (99) Unknown

15. **Accident Type**: 52
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify):
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******

OCCUPANT RELATED

16. Driver Presence in Vehicle — 1
(0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle — 02
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

18. Number of Occupant Forms Submitted — 02

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight — 3,300
3298 Code weight to nearest 100 pounds.
(010) Less than 1050 pounds
(135) 13,500 lbs or more
(999) Unknown

Source: [redacted]

20. Vehicle Cargo Weight — 0,000
30LBS Code weight to nearest 100 pounds.
(00) Less than 50 pounds
(97) 9,650 lbs or more
(99) Unknown

RECONSTRUCTION DATA

21. Towed Trailing Unit — 0
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

22. Documentation of Trajectory Data for This Vehicle — 2
(0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (for Highest Delta V) — 2
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

(9) Unknown

24. Rollover — 0
(0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)
(1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify):

(5) Rollover—end-over-end (i.e., primarily about the lateral axis)
(9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this vehicle) — 0

26. Rear Override/Underride (this vehicle) — 0

(0) No override/underride, or not an end-to-end impact

Override (see specific CDC)
(1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underride (see specific CDC)
(4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

(7) Medium/heavy truck or bus override
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle for This Vehicle — 090

28. Heading Angle for Other Vehicle — 290

29. Basis for Total Delta V (Highest) 1

Delta V Calculated
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

Delta V Not Calculated
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction techniques, regardless of adequacy of damage data.

(6) All vehicles and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

	Secondary	Highest
30. Total Delta V		42
42.1 Nearest mph	____	

(NOTE: 00 means less than 0.5 mph)
(97) 96.5 mph and above
(99) Unknown

	Secondary	Highest
31. Longitudinal Component of Delta V		+42
-41.5 Nearest mph	____	

(NOTE: __00 means greater than −0.5 and less than +0.5 mph)
(±97) ±96.5 mph and above
(__ 99) Unknown

	Secondary	Highest
32. Lateral Component of Delta V		+07
-7.3 Nearest mph	____	

(NOTE: __00 means greater than −0.5 and less than +0.5 mph)
(±97) ±96.5 mph and above
(__ 99) Unknown

33. Energy Absorption 253,000
252974.8 Nearest 100 foot-lbs ____

(NOTE: 0000 means less than 50 Foot-Lbs)
(9997) 999,650 foot-lbs or more
(9999) Unknown

34. Confidence in Reconstruction Program Results (for Highest Delta V) 1
(0) No reconstruction
(1) Collision fits model—results appear reasonable
(2) Collision fits model—results appear high
(3) Collision fits model—results appear low
(4) Borderline reconstruction—results appear reasonable

35. Type of Vehicle Inspection 1
(0) No Inspection
(1) Complete inspection
(2) Partial inspection (specify):

36. Is this an AOPS Vehicle? 0
(0) No
(1) Yes

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [X] NO
IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence [0]
    (0) No other drugs present
    (1) Yes (other drug present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

38. Police Reported Observation/Perception Test Type For Driver [0]
    (0) No observation/perception test given
    (1) Drug recognition technician (DRT) determination
    (2) Behavioral
    (3) Other physical observation/perception determination (specify):

    _____

    (7) Other observation/perception test
    (8) No driver present

    _____

    (9) Unknown if observation/perception test given

39. Other Drug Specimen Test Type For Driver [1]
    (0) No specimen test given
    (1) Blood test
    (2) Urine test
    (3) Other specimen tests (specify):

    _____

    (7) Unspecified specimen test
    (8) No driver present
    (9) Unknown if specimen test given

OTHER DRUGS TEST RESULTS FOR DRIVER

	Observation/ Perception Test Results	Specimen Test Results
Narcotic Drug	40. [0]	41. [1]
Depressant Drug	42. [0]	43. [1]
Stimulant Drug	44. [0]	45. [1]
Hallucinogen Drug	46. [0]	47. [0]
Cannabinoid Drug	48. [0]	49. [0]
Phencyclidine (PCP)Drug	50. [0]	51. [1]
Inhalant Drug	52. [0]	53. [0]
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. [0]	55. [1]

Codes For Observation/Perception Test Results

(0) No observation/perception test given
(1) Passed observation/perception test
(2) Failed observation/perception test
(3) Observation/perception test given—results unknown
(8) No driver present
(9) Unknown if observation/perception test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(8) No driver present
(9) Unknown if specimen test given

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

U.S. Department of Transportation
National Highway Traffic Safety Administration

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10	3. Vehicle Number: 02
2. Case Number–Stratum: 9103	

VEHICLE IDENTIFICATION

VIN 3R47F9M[redacted] Model Year 1979

Vehicle Make (specify): OLDSMOBILE Vehicle Model (specify): CUTLASS SUPREME

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
1	BUMPER CORNER TO BUMPER CORNER	BUMPER CORNER TO BUMPER CORNER

CRUSH PROFILE

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of C-Measurements	Direct Damage		Field L	C_1	C_2	C_3	C_4	C_5	C_6	±D
		Width (CDC)	Max Crush								
1	MID-BUMPER	60	49	49.5	11.5	27.0	34.5	39.5	42.0	49.0	0
	FREE SPACE				3.0	1.5	0.5	0.5	1.5	3.0	
	ADJUSTED VALUES		46		8.5	25.5	34.0	39.0	40.5	46.0	

HS Form 435A (Rev. 1/91)

VEHICLE DAMAGE SKETCH

TIRE – WHEEL DAMAGE

	a. Rotation physically restricted	b. Tire deflated
RF	1	1
LF	1	2
RR	9	1
LR	1	2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☒ Automatic

ORIGINAL SPECIFICATIONS

Wheelbase	108.1
Overall Length	200.1
Maximum Width	71.3
Curb Weight	3298
Average Track	58.2
Front Overhang	
Rear Overhang	
Engine Size: cyl./ displ.	V8/260
Undeformed End Width	65.5

WHEEL STEER ANGLES

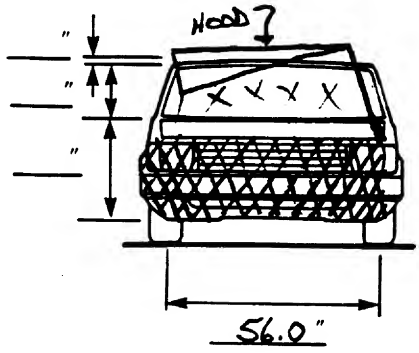
(For locked front wheels or displaced rear axles only)

RF ± ___ °
LF ⊖ 15 °
RR ± ___ °
LR ⊖ 15 °
Within ±5 degrees

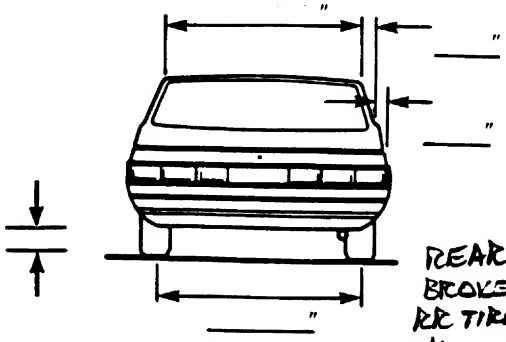
DRIVE WHEELS

☐ FWD ☒ RWD ☐ 4WD

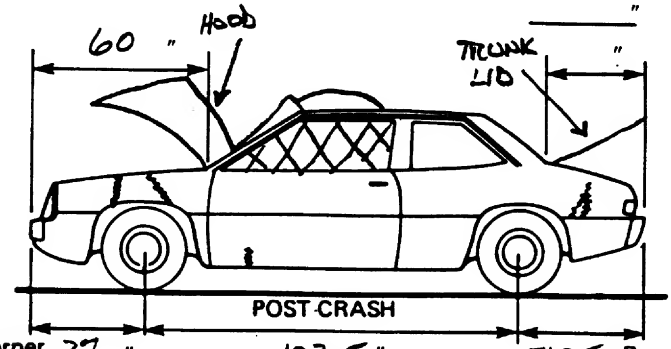
Approximate Cargo Weight 25 LBS



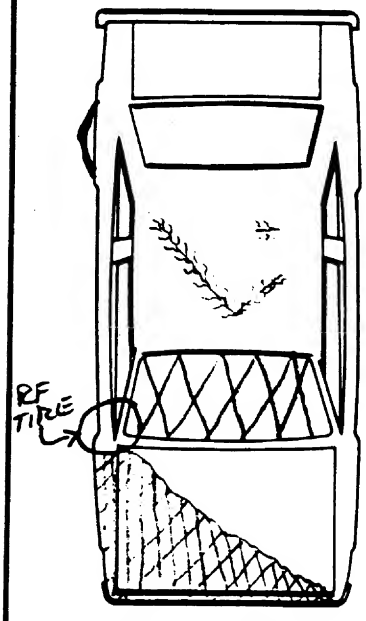
Original Bumper height

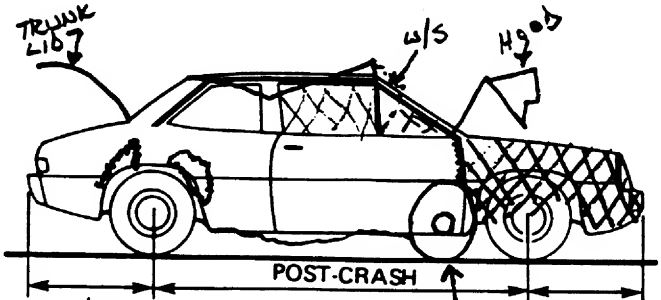


REAR AXLE BROKEN – RR TIRE AND ≈ ½ OF AXLE REMOVED BY TOW YARD



Bumper corner 37 " 102.5 " 51.25" Bumper corner
Stringline ___ " 52.25" Stringline





Bumper corner 48 " 86.5 " 22 " Bumper corner
Stringline 49 " ___ " Stringline

NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewall, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.
Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

01-30—Vehicle Number

Noncollision
- (31) Overturn—rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify): _____
- (35) Noncollision injury
- (38) Other noncollision (specify): _____
- (39) Noncollision—details unknown

Collision with Fixed Object
- (41) Tree (≤4 inches in diameter)
- (42) Tree (>4 inches in diameter)
- (43) Shrubbery or bush
- (44) Embankment
- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
- (50) Pole or post (≤4 inches in diameter)
- (51) Pole or post (>4 but ≤12 inches in diameter)
- (52) Pole or post (>12 inches in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (specify): _____
- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or Culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____
- (69) Unknown fixed object

Collision With Nonfixed Object
- (71) Motor vehicle not in transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance (specify): _____
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (88) Other nonfixed object (specify): _____
- (89) Unknown nonfixed object

- (98) Other event (specify): _____
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	01	10	00	F	D	E	W	04

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. 01	5. 01	6. 12	7. F	8. D	9. E	10. W	11. 04

Second Highest Delta "V"

12. — —	13. — —	14. — —	15. —	16. —	17. —	18. —	19. — —

CRUSH PROFILE

(The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. ALL MEASUREMENTS ARE IN INCHES.)

HIGHEST DELTA "V"

20. L	21. C1	C2	C3	C4	C5	C6	22. + − D
66	9	26	34	39	41	46	+ − 000

Second Highest Delta "V"

23. L	24. C1	C2	C3	C4	C5	C6	25. + − D
— — —	— —	— —	— —	— —	— —	— —	+ − — — — —

26. Are CDCs Documented but Not Coded on The Automated File? (0) No (1) Yes — 0	27. Researcher's Assessment of Vehicle Disposition (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown — 1	28. Original Wheelbase 108.1 Code to the nearest tenth of an inch (9999) Unknown — 1081

29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? 0
(0) No post manufacturer modifications
(1) Yes - post manufacturer modifications
(specify): _____
_____
_____
(Include photograph of CERTIFICATION PLACARD in case report)
(9) Unknown if vehicle is modified

30. Fire Occurrence 0
(0) No fire

Yes, fire occurred
(1) Minor
(2) Major
(9) Unknown

31. Origin of Fire 0
(0) No fire
(1) Vehicle exterior (front, side, back, top)
(2) Exhaust system
(3) Fuel tank (and other fuel retention system parts)
(4) Engine compartment
(5) Cargo/trunk compartment
(6) Instrument panel
(7) Passenger compartment area
(8) Other location (specify):
_____
(9) Unknown

32. Type of Fuel Tank 1
(0) No fuel tank (electrical vehicle)
(1) Metallic
(2) Non-metallic
(9) Unknown

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***
(I.E., GV09=0 OR 9), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.

U.S. Department of Transportation
National Highway Traffic Safety Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 02

INTEGRITY

4. Passenger Compartment Integrity: 06

(00) No integrity loss

Yes, Integrity Was Lost Through
(01) Windshield
(02) Door (side)
(03) Door/hatch (back door)
(04) Roof
(05) Roof glass
(06) Side window
(07) Rear window (backlight)
(08) Roof and roof glass
(09) Windshield and door (side)
(10) Windshield and roof
(11) Side and rear window (side window and backlight)
(12) Windshield and side window
(13) Door and side window
(98) Other combination of above (specify): _____

(99) Unknown

Door, Tailgate Or Hatch Opening

5. LF 1 6. RF 3 7. LR 0 8. RR 0 9. TG/H 0

(0) No door/gate/hatch
(1) Door/gate/hatch remained closed and operational
(2) Door/gate/hatch came open during collision
(3) Door/gate/hatch jammed shut
(8) Other (specify): _____

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then Code 0.

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate, or Hatch Came Open During Collision
(1) Door operational (no damage)
(2) Latch/striker failure due to damage
(3) Hinge failure due to damage
(4) Door structure failure due to damage
(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
(6) Latch/striker and hinge failure due to damage
(8) Other failure (specify): _____

(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 1 16. LF 0 17. RF 6 18. LR 0 19. RR 0
20. BL 0 21. Roof 0 22. Other 0

(0) No glazing damage from impact forces
(2) Glazing in place and cracked from impact forces
(3) Glazing in place and holed from impact forces
(4) Glazing out-of-place (cracked or not) and not holed from impact forces
(5) Glazing out-of-place and holed from impact forces
(6) Glazing disintegrated from impact forces
(7) Glazing removed prior to accident
(8) No glazing
(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 4 24. LF 0 25. RF 9 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing
(1) Glazing contacted by occupant but no glazing damage
(2) Glazing in place and cracked by occupant contact
(3) Glazing in place and holed by occupant contact
(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
(5) Glazing out-of-place by occupant contact and holed by occupant contact
(6) Glazing disintegrated by occupant contact
(9) Unknown if contacted by occupant

If No Glazing Damage ***And*** No Occupant Contact or No Glazing, Then Code IV 31 Through IV 46 As 0

Type of Window/Windshield Glazing

31. WS 1 32. LF 0 33. RF 9 34. LR 0 35. RR 0
36. BL 0 37. Roof 0 38. Other 0

(0) No glazing contact and no damage, or no glazing
(1) AS-1 – Laminated
(2) AS-2 – Tempered
(3) AS-3 – Tempered-tinted
(4) AS-14 – Glass/Plastic
(8) Other (specify): _____

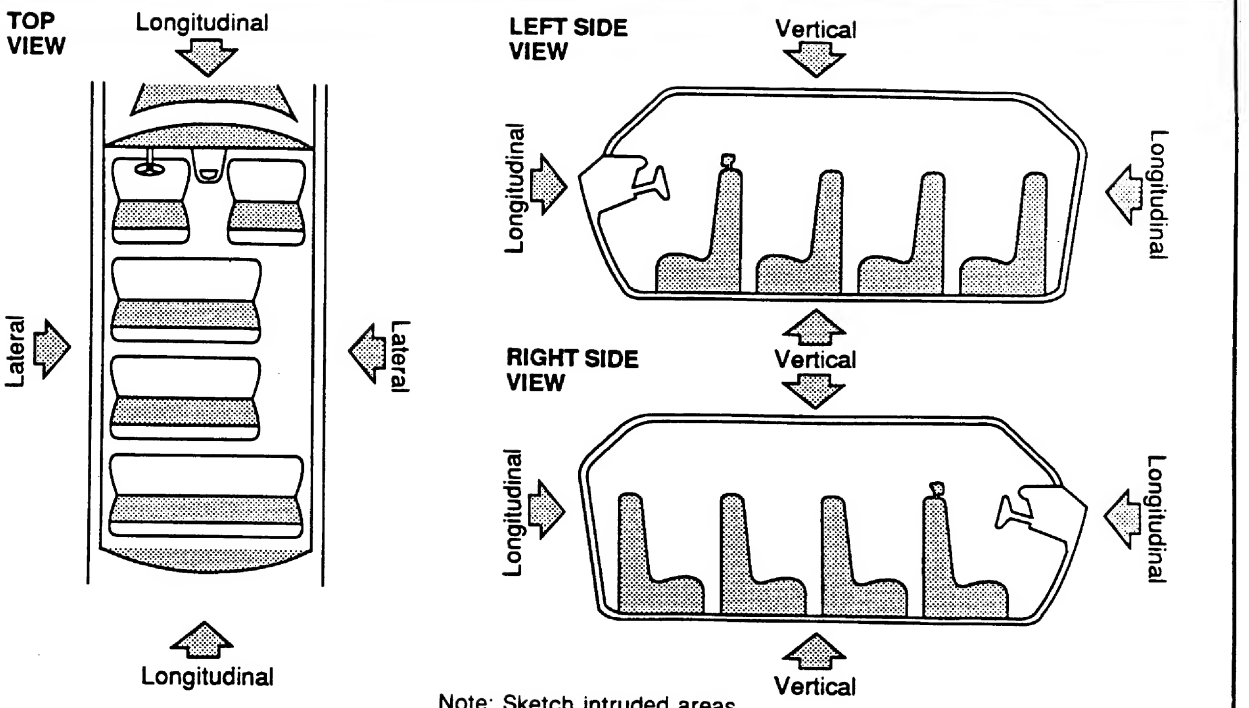
(9) Unknown

Window Precrash Glazing Status

39. WS 1 40. LF 0 41. RF 9 42. LR 0 43. RR 0
44. BL 0 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing
(1) Fixed
(2) Closed
(3) Partially opened
(4) Fully opened
(9) Unknown

INTRUSION WORK SHEET



Note: Sketch intruded areas

LOCATION OF INTRUSION	INTRUDED COMPONENT	COMPARISION VALUE	–	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
11	INSTRUMENT PANEL	44.5"	–	37.0"	=	7.5"	LONG
	WINDSHIELD	50.75"	–	45.25"	=	5.5"	LONG
	WINDSHIELD HEADER	38.5"	–	37.5"	=	1.0"	LONG
12	INSTRUMENT PANEL	39.0"	–	30.5"	=	8.5"	LONG
	WINDSHIELD	41.0"	–	35.5"	=	5.5"	LONG
13	INSTRUMENT PANEL	48.25"	–	29.75	=	18.5"	LONG
	BOTTOM OF UPPER "A" PILLAR	49.5"	–	38.5"	=	11.0"	LONG
	ROOF AT "B" PILLAR	41.5"	–	38.5"	=	3.0"	VERT
			–		=		
*	STEERING WHEEL BROKEN FROM COLUMN THROUGH CONTACT WITH DRIVER'S BODY - COUNT NOT BE MEASURED						
			–		=		
			–		=		
			–		=		
			–		=		

Document no more than the 15 most severe intrusions

★ ALL TOE PAN AND FLOORBOARD INTRUSION MEASUREMENTS ARE CHECKED AS POST-CRASH USE OF "JAWS OF LIFE" TO LIFT FLOOR TO SEARCH OF MISSING JEWELRY SERIOUSLY MASKED REAL POST-CRASH DEGRADATION OF THESE AREAS

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV 47-IV 86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. 1 3	48. 0 4	49. 5	50. 2
2nd	51. 1 3	52. 0 6	53. 3	54. 2
3rd	55. 1 2	56. 0 3	57. 3	58. 2
4th	59. 1 1	60. 0 2	61. 3	62. 2
5th	63. 1 1	64. 1 4	65. 2	66. 2
6th	67. 1 2	68. 1 4	69. 2	70. 2
7th	71. 1 3	72. 1 3	73. 2	74. 1
8th	75. 1	76. 1 5	77. 1	78. 2
9th	79. 9 9	80. 9 9	81. 9	82. 9
10th	83.	84.	85.	86.

LOCATION OF INTRUSION

Front Seat
- (11) Left
- (12) Middle
- (13) Right

Second Seat
- (21) Left
- (22) Middle
- (23) Right

Third Seat
- (31) Left
- (32) Middle
- (33) Right

Fourth Seat
- (41) Left
- (42) Middle
- (43) Right

- (97) Catastrophic
- (98) Other enclosed area (specify): _____
- (99) Unknown

INTRUDING COMPONENT

Interior Components
- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify): _____
- (27) Side panel - forward of the A-pillar
- (28) Side panel - rear of the A-pillar

Exterior Components
- (30) Hood
- (31) Outside surface of vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 1 inch but < 3 inches
- (2) ≥ 3 inches but < 6 inches
- (3) ≥ 6 inches but < 12 inches
- (4) ≥ 12 inches but < 18 inches
- (5) ≥ 18 inches but < 24 inches
- (6) ≥ 24 inches
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING COLUMN

87. Steering Column Type 1
(1) Fixed column
(2) Tilt column
(3) Telescoping column
(4) Tilt and telescoping column
(8) Other column type (specify):

_____

(9) Unknown

88. Blank XX
(This variable is left blank so that numbering consistency can be maintained with the 1988–90 CDS.

89. Blank XXX
(This variable is left blank so that numbering consistency can be maintained with the 1988–90 CDS.

90. Blank XXX
(This variable is left blank so that numbering consistency can be maintained with the 1988–90 CDS.

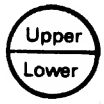
91. Blank XXX
(This variable is left blank so that numbering consistency can be maintained with the 1988–90 CDS.

92. Steering Rim/Spoke Deformation 6
7.25" Code actual measured deformation to the nearest inch.
(0) No steering rim deformation
(1-5) Actual measured value
(6) 6 inches or more
(8) Observed deformation cannot be measured
(9) Unknown

93. Location of Steering Rim/Spoke Deformation 09
(00) No steering rim deformation

Quarter Sections
(01) Section A
(02) Section B
(03) Section C
(04) Section D

Half Sections
(05) Upper half of rim/spoke
(06) Lower half of rim/spoke
(07) Left half of rim/spoke
(08) Right half of rim/spoke



(09) Complete steering wheel collapse
(10) Undetermined location
(99) Unknown

INSTRUMENT PANEL

94. Odometer Reading 122,000
121,708 miles—Code mileage to the nearest 1,000 miles
(000) No odometer
(001) Less than 1,500 miles
(300) 299,500 miles or more
(999) Unknown

Source: _____

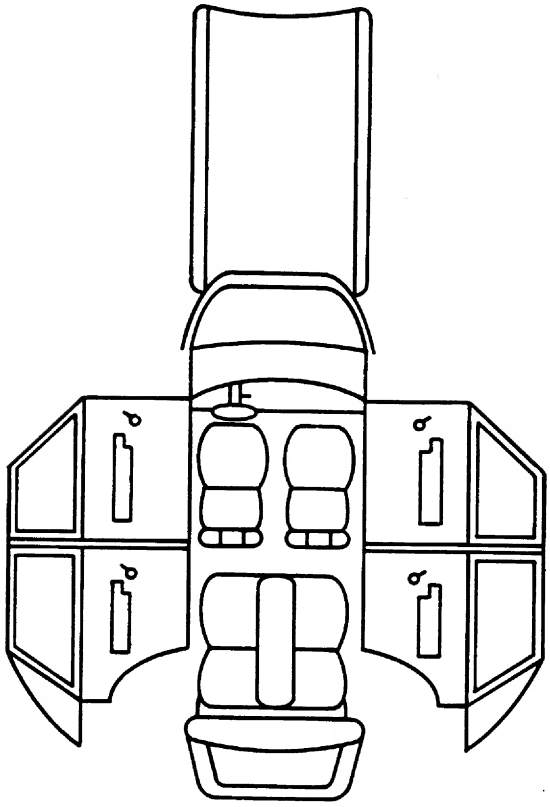
95. Instrument Panel Damage from Occupant Contact? 1
(0) No
(1) Yes
(9) Unknown

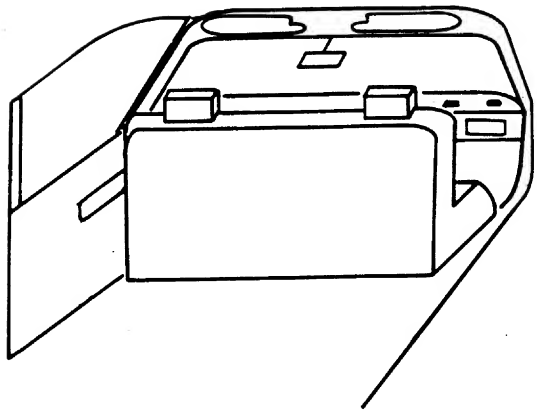
96. Knee Bolsters Deformed from Occupant Contact? 8
(0) No
(1) Yes
(8) Not present
(9) Unknown

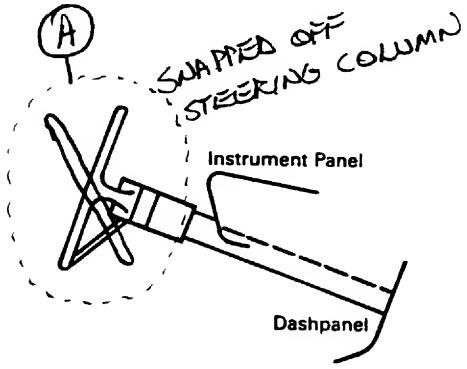
97. Did Glove Compartment Door Open During Collision(s)? 1
(0) No
(1) Yes
(8) Not present
(9) Unknown

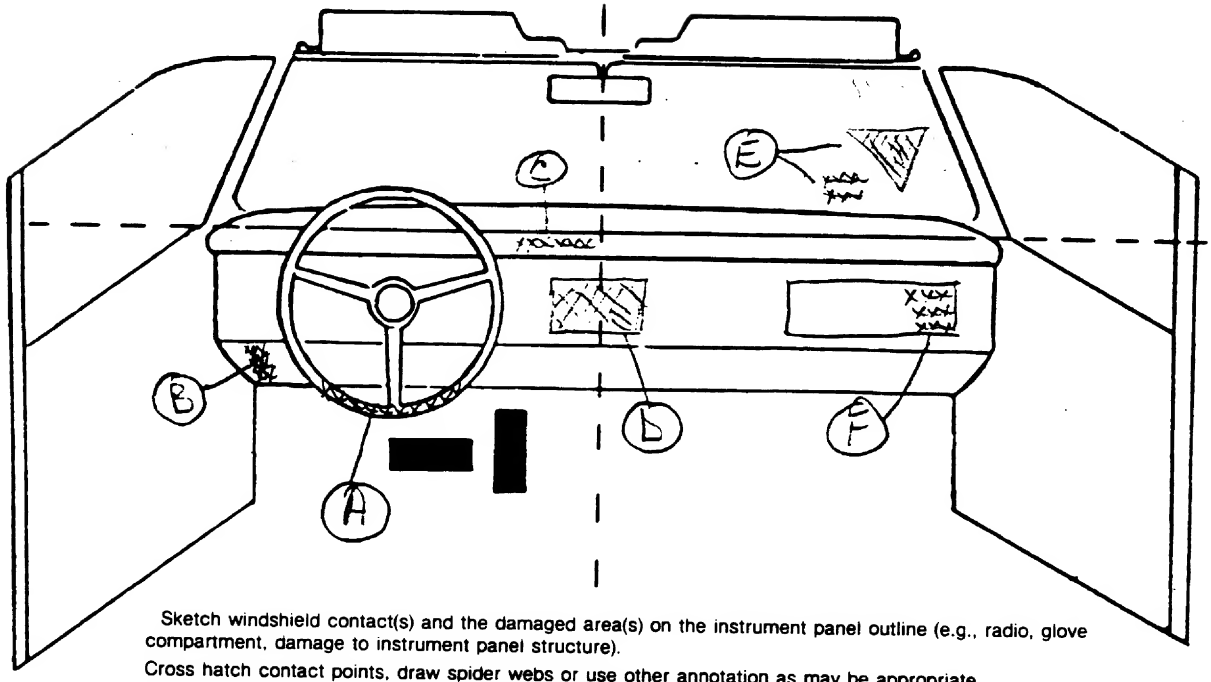
VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment









Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	04	01	PELVIS	STEERING WHEEL AND HUB SNAPPED OFF AND LYING IN DRIVER'S LAP	1
B	09	01	KNEE	INDENTATION/SPLIT	1
C	10	01	UNKNOWN	SCRAPE/SKIN TRANSFER	2
D	10	01	UNKNOWN	SCRAPES/SKIN TRANSFERS	1
E	01	02	HEAD/FACE	SKIN/HAIR	1
F	12	02	KNEE	INDENTATION	1
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT
- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror,or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): _____

LEFT SIDE
- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (27) Other left side object (specify): _____

RIGHT SIDE
- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): _____
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (37) Other right side object (specify): _____

INTERIOR
- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): _____
- (47) Interior loose objects
- (48) Child safety seat (specify): _____
- (49) Other interior object (specify): _____

ROOF
- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR
- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR
- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

CONFIDENCE LEVEL OF CONTACT POINT
- (1) Certain
- (2) Probable
- (3) Possible
- (4) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
FIRST	Availability/Function	0	0
	Deployment	0	0
	Failure	0	0

Air Bag System Availability/Function
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

Air Bag System Deployment
(0) Not equipped/not available
(1) Air bag deployed during accident
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(9) Unknown

Did Air Bag System Fail?
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

AUTOMATIC BELTS

		Left	Right
FIRST	Availability/Function	0	0
	Use	0	0
	Type	0	0
	Proper Use	0	0
	Failure Modes	0	0

Automatic (Passive) Belt System Availability/Function
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

Automatic (Passive) Belt System Use
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)
(3) Automatic belt use unknown
(9) Unknown

Automatic (Passive) Belt System Type
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

Proper Use of Automatic (Passive) Belt System
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of automatic belt system (specify): _____
(9) Unknown

Automatic (Passive) Belt Failure Modes During Accident
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify): _____
(9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data **for each seat position** in the vehicle. The attributes for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	3	4
	Use	04	00	00
	Failure Modes	1	0	0
SECOND	Availability	3	3	3
	Use	00	00	00
	Failure Modes	0	0	0
THIRD	Availability			
	Use			
	Failure Modes			
OTHER	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

(0) Not available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available — type unknown
(8) Other belt (specify):

_____

(9) Unknown

Manual (Active) Belt System Use

(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify):

_____

(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used — type unknown

_____

(08) Other belt used (specify):

_____

(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat — type unknown
(18) Other belt used with child safety seat (specify):

_____

(99) Unknown if belt used

Manual (Active) Belt Failure Modes During Accident

(0) No manual belt used or not available
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):

_____

(6) Broken retractor
(7) Combination of above (specify):

_____

(8) Other manual belt failure (specify):

_____

(9) Unknown

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for **each seat position** in the vehicle. The attributes for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	05	05	05
	Seat Performance	1	1	1
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			

Head Restraint Type/Damage by Occupant at This Occupant Position

(0) No head restraints
(1) Integral — no damage
(2) Integral — damaged during accident
(3) Adjustable — no damage
(4) Adjustable — damaged during accident
(5) Add-on — no damage
(6) Add-on — damaged during accident
(8) Other (specify): _____
(9) Unknown

Seat Type (This Occupant Position)

(00) No seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., van type)
(09) Other seat type (specify): _____
(99) Unknown

Seat Performance (This Occupant Position)

(0) No seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks failed
(4) Seat tracks/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify):
_____
_____
(7) Combination of above (specify):
(8) Other (specify):
_____
(9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E. UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indications that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [X] Yes [ ]

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown

Ejection Area
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.) (specify):
(9) Unknown

Ejection Medium
(1) Door hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify):
(5) Integral structure
(8) Other medium (specify):
(9) Unknown

Medium Status (Immediately Prior to Impact)
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

ENTRAPMENT No [ ] Yes [X] ?

Describe entrapment mechanism: EMT INTERVIEW INDICATED HE THOUGHT DRIVER'S LEGS WERE ENTRAPPED BY LOWER INSTRUMENT PANEL. VIDEO CLEARLY SHOWS THIS NOT TO BE THE CASE — PERHAPS THE STEERING WHEEL IN THE DRIVER'S LAP GAVE AN IMPRESSION OF ENTRAPMENT. THE RIGHT-FRONT PASSENGER SEEMED MORE "WEDGED" BEHIND DRIVER'S SEAT, RATHER THAN ENTRAPPED.

Component(s): ACCORDING TO EMT, PASSENGER'S LEFT LEG WAS OUTSIDE DRIVER'S SEAT, WITH RIGHT LEG EXTENDED (BETWEEN) FRONT SEAT BACKS.

(Note in vehicle interior diagram)

Appendix F:

NASS Interview Form

U.S. Department of Transportation
National Highway Traffic Safety Administration

INTERVIEW FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Primary Sampling Unit Number 10
Case Number–Stratum 9103
Vehicle Number ____

Interviewee(s) Role(s) or Name(s) FIRST RESPONDER EMT

Review the Interview Cue Sheet prior to conducting interview(s) to ensure the acquisition of all pertinent data.

GENERAL DESCRIPTION OF ACCIDENT SEQUENCE

NOTIFIED OF CRASH 1632 HOURS
ARRIVED ON SCENE 1643, 3 UNITS RESPONDING
FIRE UNITS ALSO ON SCENE
LINCOLN – ALL DOORS CLOSED BUT NO ENTRAPMENT
DRIVER BELTED, BEHIND STEERING WHEEL, LEANING BACK AGAINST SEAT BACK, TRYING TO HOLD UP PASSENGER SLUMPED TOWARD HIM, CONSCIOUS BUT DISORIENTED (DRIVER)
PASSENGER UNCONSCIOUS, SLUMPED TOWARDS DRIVER.

SPECIFIC QUESTIONS

BELTED, ALIVE, FIRST OCCUPANT TO LEAVE SCENE

OLDSMOBILE – DRIVER DOOR OPEN, STEERING WHEEL LYING ON DRIVER'S LAP, DRIVER UPRIGHT IN SEAT CAN'T RECALL IF BELTED DRIVER GASPING FOR AIR LEGS ENTRAPPED BY LOWER INSTRUMENT PANEL, SEVERE LOWER EXTREMITY FRACTURES, DIED AT SCENE

Key to Researcher: Have you obtained the following through the interviewee(s) description and specific questions?

(OVER)

- [ ] PRE-CRASH, AT IMPACT vehicle travel/driver intention
- [ ] Direction of travel
- [ ] Avoidance maneuvers
- [ ] Impact description/orientation
- [ ] Speed estimates (precrash/at impact)
- [ ] Post-impact trajectory
- [ ] Door status (precrash/postcrash)
- [ ] Final rest position
- [ ] Previous vehicle damage
- [ ] Glazing type
- [ ] Vehicle glazing status
- [ ] PAR clarifications
- [ ] Glove box status

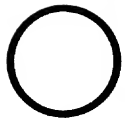
Cargo? No [ ] Yes [ ] Interviewee's Estimated Cargo Weight ____

Description of Cargo ____

Present Location of Vehicle (if not yet inspected)?: ____

ACCIDENT DIAGRAM

The use of this diagram is *optional*. It may serve to aid in relating interviewee accident trajectory data (i.e. pre-impact to FRP orientations) to identifiable objects in the environment.



NORTH

OLDSMOBILE PASSENGER -

DON'T KNOW ORIGINAL SEAT POSITION
LEFT LEG UNDER DRIVER'S SEAT
RIGHT LEG BETWEEN FRONT SEAT BACKS POINTING TO RF SEAT POSITION
UPPER TORSO IN LR SEAT POSITION ON TOP OF BENCH
NO VITAL SIGNS - DIED AT SCENE

OCCUPANT DATA

Enter the occupant's seat position in the first row and complete the column below it using the information from the interviewee(s).

SEAT POSITION				
AGE/SEX				
HEIGHT (IN)				
WEIGHT (LBS.)				
POSTURE				
EJECTED? [ ] No [ ] Yes				
DESCRIBE THE EJECTION				
ENTRAPPED? [ ] No [ ] Yes				
DESCRIBE ENTRAPMENT				
DESCRIBE TYPE OF RESTRAINT				
WERE BELTS WORN? [ ] No [ ] Yes				
HOW WHERE THE BELTS WORN?				
DESCRIBE ANY RESTRAINT FAILURES				
TYPE OF TREATMENT				
NAME OF TREATMENT FACILITY				
DAYS IN HOSPITAL?				
NO. OF LOST WORK DAYS?				
WOULD YOU SIGN A MEDICAL RELEASE?				

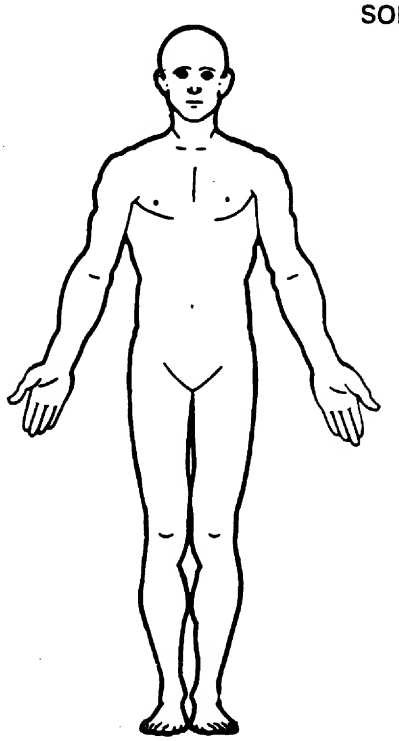
PSU Number ____ Case Number—Stratum ____ ____ ____ ____ Vehicle Number ____ ____ Occupant Number ____ ____

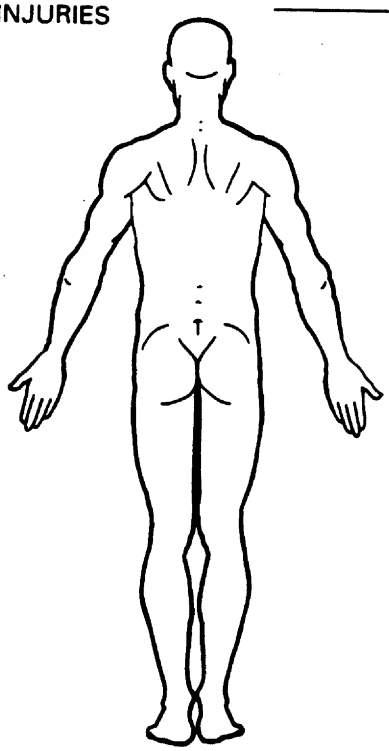
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail,* and *Source* of all injuries. Specify interviewee(s): _____

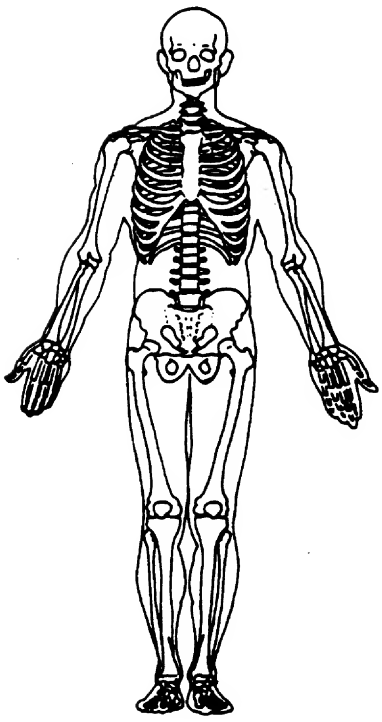
_____

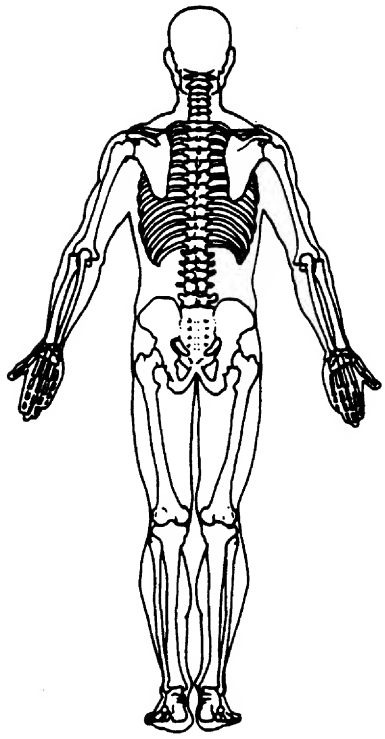
SOFT TISSUE/INTERNAL INJURIES





SKELETAL INJURIES





The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

U.S. Department of Transportation
National Highway Traffic Safety Administration

INTERVIEW FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Primary Sampling Unit Number 10 Interviewee(s) Role(s) or Name(s) DRIVER

Case Number–Stratum 9103

Vehicle Number 01

Review the Interview Cue Sheet prior to conducting interview(s) to ensure the acquisition of all pertinent data.

GENERAL DESCRIPTION OF ACCIDENT SEQUENCE

DRIVER HAS EXPERIENCED A MEMORY LOSS OF THE TOTAL CRASH SEQUENCE. HE RECALLS PASSING LANDMARKS PRIOR TO THE CRASH SEQUENCE, AND CAN REMEMBER TALKING TO PEOPLE POST-CRASH BEFORE BEING REMOVED FROM THE VEHICLE. THE FIRST POST-CRASH MEMORY IS LOOKING AT HIS WIFE. "SHE SEEMED TO BE ASLEEP BUT I COULDN'T AWAKEN HER." THE DRIVER REQUESTED EMTs TO TREAT AND TRANSPORT HIS WIFE FIRST BECAUSE "SHE SEEMED TO BE HURT WORSE THAN I WAS."

SPECIFIC QUESTIONS

Key to Researcher: Have you obtained the following through the interviewee(s) description and specific questions?

- [ ] ~~PRE-CRASH, AT IMPACT vehicle travel/driver intention~~
- [✓] Direction of travel
- [ ] ~~Avoidance maneuvers~~
- [ ] ~~Impact description/orientation~~
- [ ] ~~Speed estimates (precrash/at impact)~~
- [ ] ~~Post-impact trajectory~~
- [ ] Door status (precrash/postcrash)
- [ ] Final rest position
- [✓] Previous vehicle damage
- [ ] ~~Glazing type~~
- [ ] ~~Vehicle glazing status~~
- [ ] ~~PAR clarifications~~
- [ ] ~~Glove box status~~

Cargo? No [ ] Yes [ ] Interviewee's Estimated Cargo Weight UNKNOWN

Description of Cargo DOESN'T RECALL

Present Location of Vehicle (if not yet inspected)?:

HS Form 433D (1/91)

OCCUPANT DATA

Enter the occupant's seat position in the first row and complete the column below it using the information from the interviewee(s).

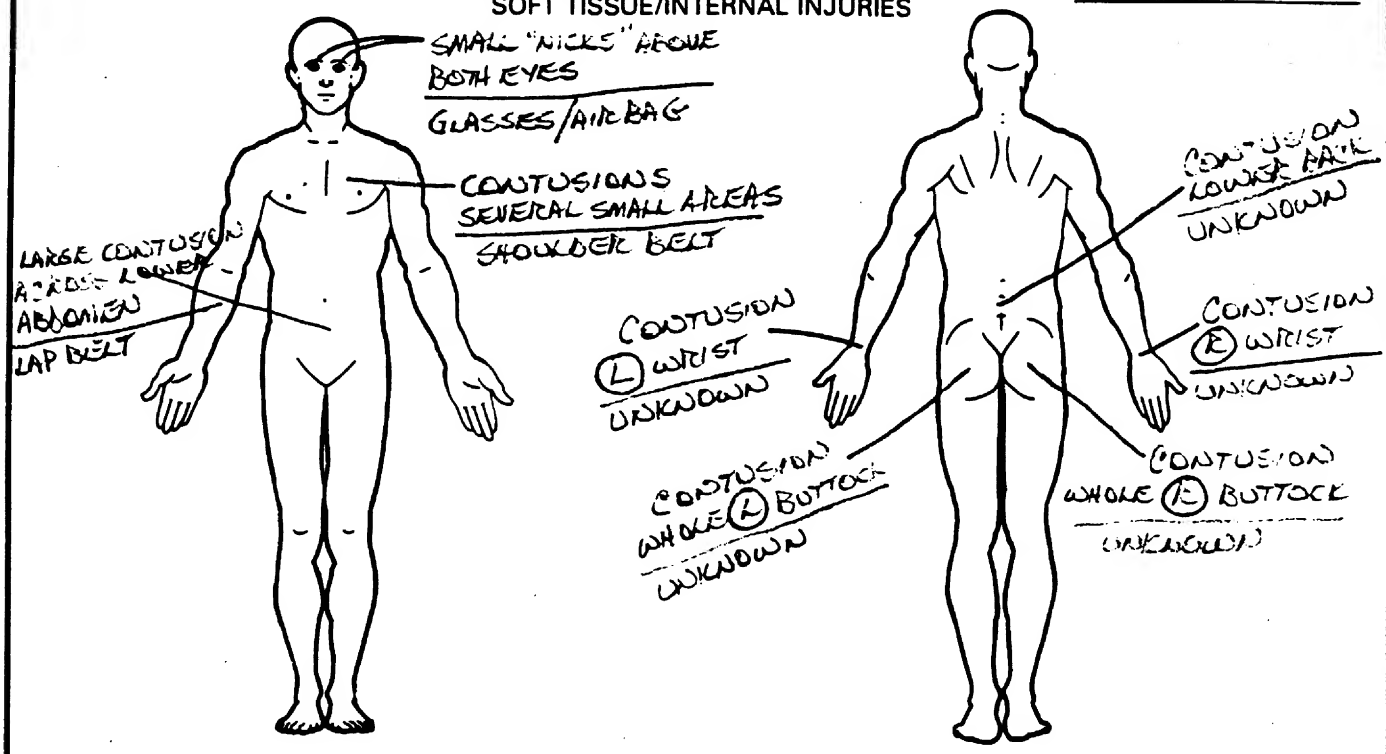
	DRIVER	PASSENGER		
SEAT POSITION	"NORMAL"	"NORMAL" - LIKED HER SEAT AT REARMOST ADJUSTMENT TO STRETCH OUT		
AGE/SEX	80/MALE	21/FEMALE		
HEIGHT (IN)	70"	62"		
WEIGHT (LBS.)	180-183 LBS	160 LBS		
POSTURE	"NORMAL"	"NORMAL"		
[✓] EJECTED? [ ] No [ ] Yes	No	No		
DESCRIBE THE EJECTION	NOT APPLICABLE	NOT APPLICABLE		
[✓] ENTRAPPED? [ ] No [ ] Yes	No	No		
DESCRIBE ENTRAPMENT	N/A	N/A		
DESCRIBE TYPE OF RESTRAINT	AIR BAG AND ACTIVE LAP AND SHOULDER BELTS	AIR BAG AND ACTIVE LAP AND SHOULDER BELTS		
[ ] WERE BELTS WORN? [✓] No [ ] Yes	YES	YES		
HOW WHERE THE BELTS WORN?	"NORMAL"	"NORMAL"		
DESCRIBE ANY RESTRAINT FAILURES	NONE	NONE		
TYPE OF TREATMENT	HOSPITALIZED	DIED AT HOSPITAL		
NAME OF TREATMENT FACILITY	[redacted] HOSPITAL	[redacted] HOSPITAL		
DAYS IN HOSPITAL?	37	NOT APPLICABLE		
NO. OF LOST WORK DAYS?	0 - RETIRED	NOT APPLICABLE		
WOULD YOU SIGN A MEDICAL RELEASE?	YES			

PSU Number 10 Case Number – Stratum 9103 Vehicle Number 01 Occupant Number 5

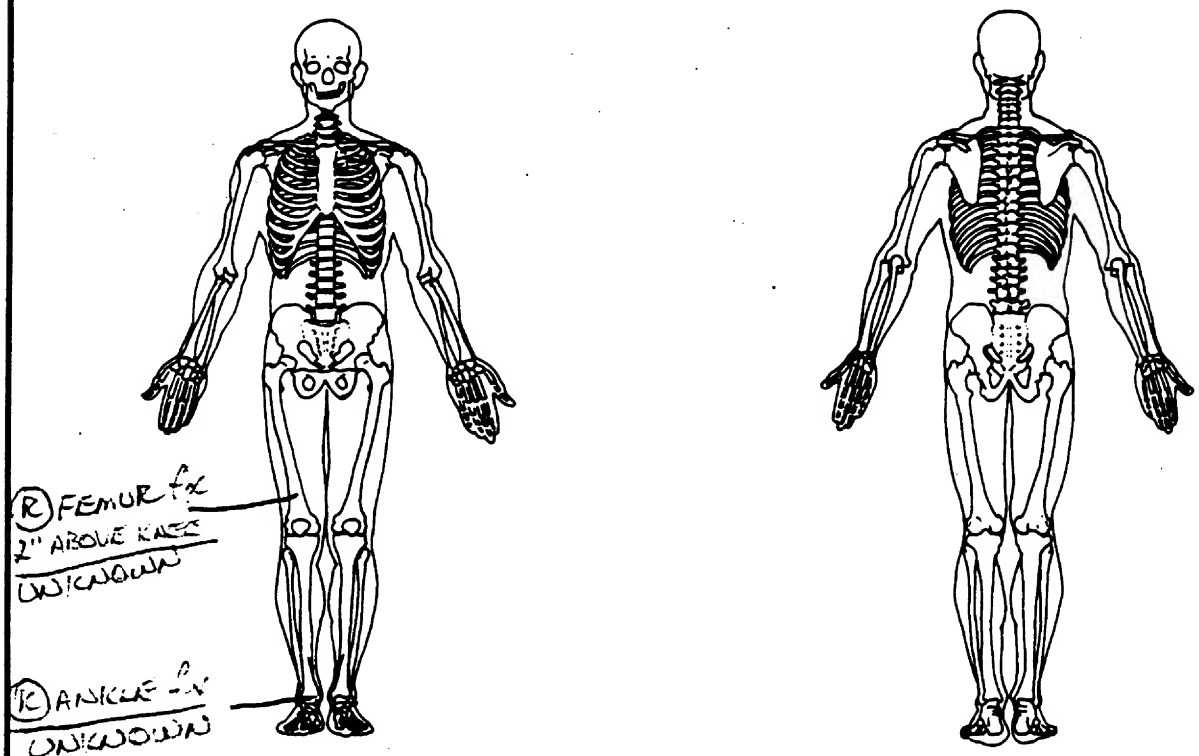
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail,* and *Source* of all injuries. Specify interviewee(s): DRIVER

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



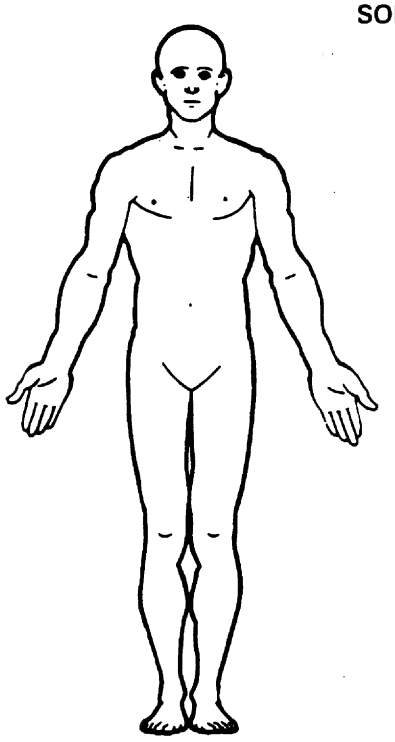
The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

PSU Number 10 Case Number – Stratum 91 03 Vehicle Number 01 Occupant Number 02

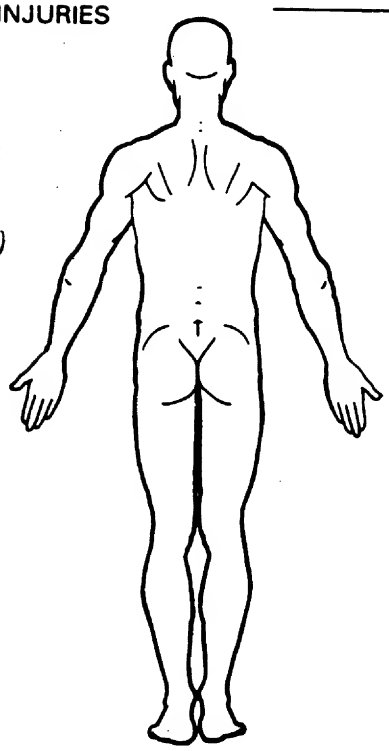
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail,* and *Source* of all injuries. Specify interviewee(s): DRIVER

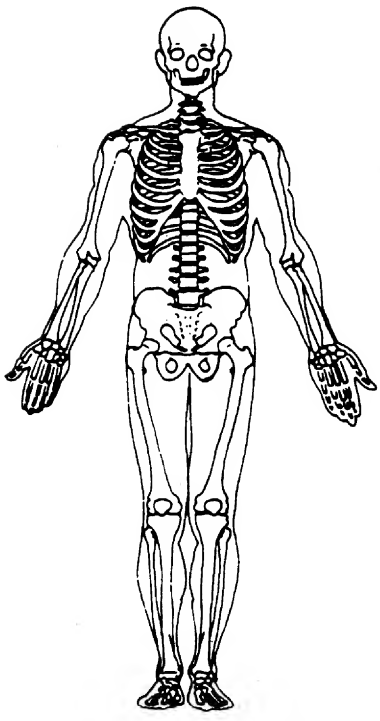
SOFT TISSUE/INTERNAL INJURIES

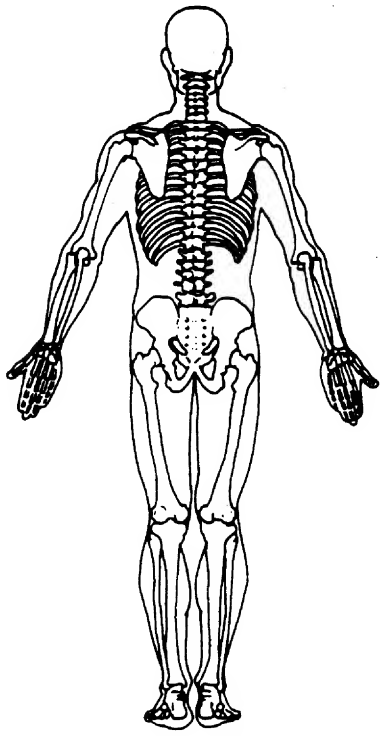


UNKNOWN



SKELETAL INJURIES





The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

U.S. Department of Transportation
National Highway Traffic Safety Administration

INTERVIEW FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Primary Sampling Unit Number 10 Interviewee(s) Role(s) or Name(s) _____

Case Number–Stratum 9103 _____

Vehicle Number 02 _____

Review the Interview Cue Sheet prior to conducting interview(s) to ensure the acquisition of all pertinent data.

GENERAL DESCRIPTION OF ACCIDENT SEQUENCE

NO INTERVIEW
DRIVER DIED AT SCENE

SPECIFIC QUESTIONS

Key to Researcher: Have you obtained the following through the interviewee(s) description and specific questions?

[ ] PRE-CRASH, AT IMPACT vehicle travel/driver intention
[ ] Direction of travel
[ ] Avoidance maneuvers
[ ] Impact description/orientation
[ ] Speed estimates (precrash/at impact)
[ ] Post-impact trajectory
[ ] Door status (precrash/postcrash)
[ ] Final rest position
[ ] Previous vehicle damage
[ ] Glazing type
[ ] Vehicle glazing status
[ ] PAR clarifications
[ ] Glove box status

Cargo? No [ ] Yes [ ] Interviewee's Estimated Cargo Weight _____

Description of Cargo _____

Present Location of Vehicle (if not yet inspected)?: _____

OCCUPANT DATA

Enter the occupant's seat position in the first row and complete the column below it using the information from the interviewee(s).

SEAT POSITION				
AGE/SEX				
HEIGHT (IN)				
WEIGHT (LBS.)				
POSTURE				
EJECTED? [ ] No [ ] Yes				
DESCRIBE THE EJECTION				
ENTRAPPED? [ ] No [ ] Yes				
DESCRIBE ENTRAPMENT				
DESCRIBE TYPE OF RESTRAINT				
WERE BELTS WORN? [ ] No [ ] Yes				
HOW WHERE THE BELTS WORN?				
DESCRIBE ANY RESTRAINT FAILURES				
TYPE OF TREATMENT				
NAME OF TREATMENT FACILITY				
DAYS IN HOSPITAL?				
NO. OF LOST WORK DAYS?				
WOULD YOU SIGN A MEDICAL RELEASE?				

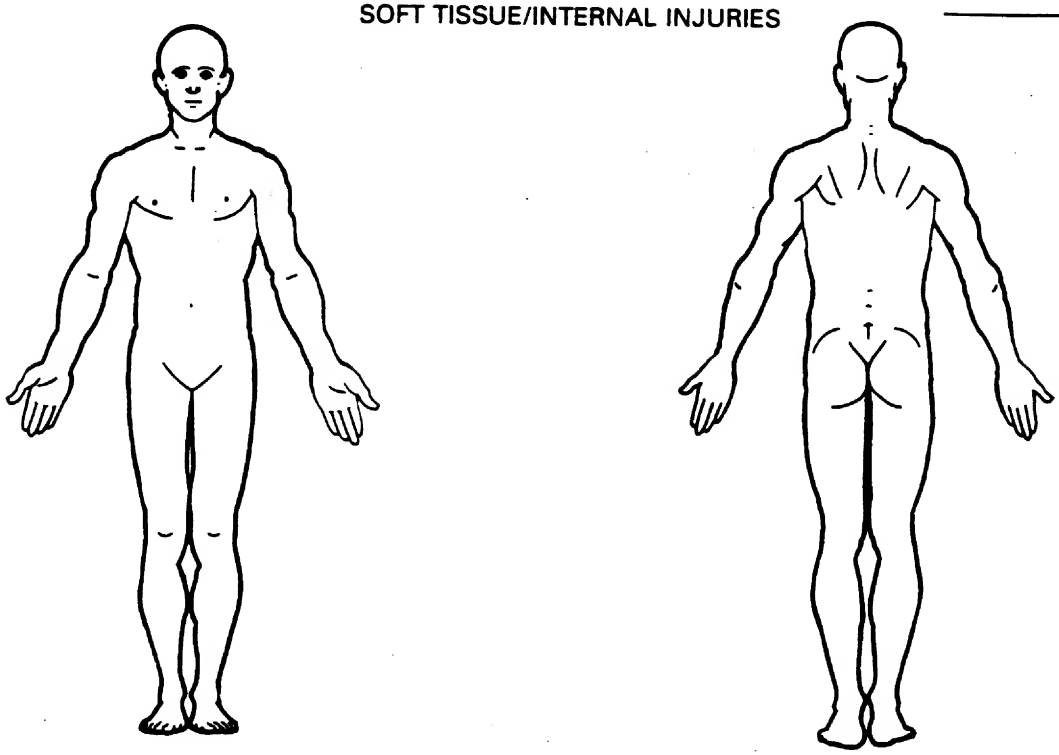
PSU Number 10 Case Number–Stratum 91 03 Vehicle Number 02 Occupant Number 01

INJURY DATA FROM INTERVIEWEE(S)

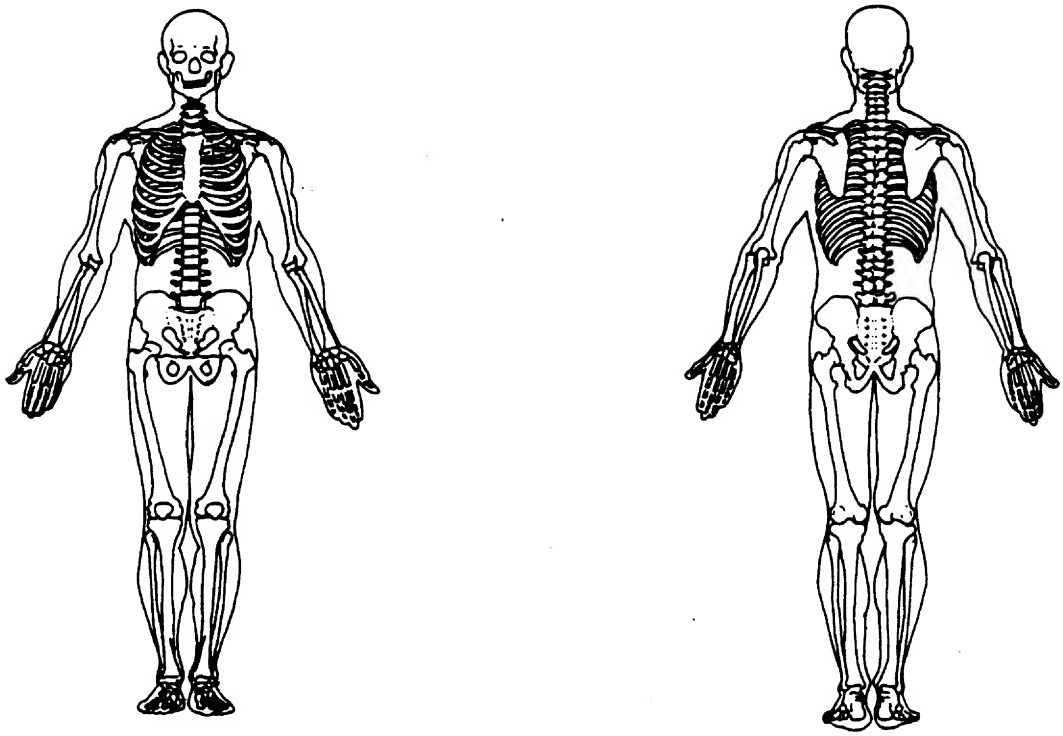
Indicate the *Location, Lesion, Detail,* and *Source* of all injuries. Specify interviewee(s): _____

_____

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



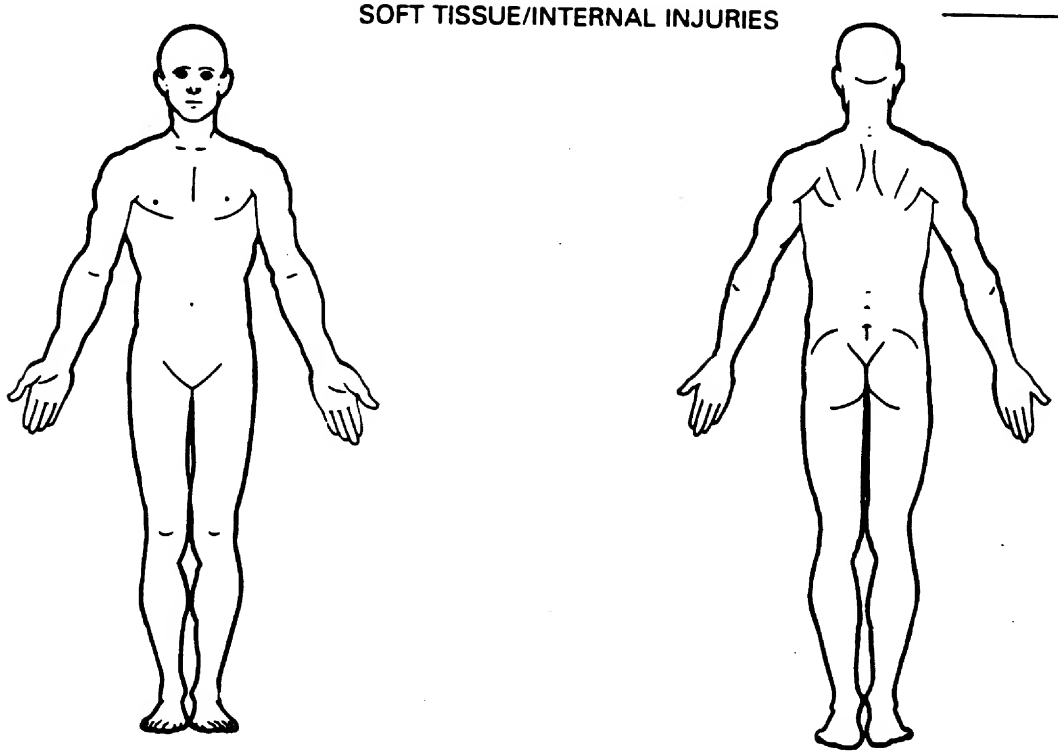
The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

PSU Number 10 Case Number – Stratum 91 03 Vehicle Number 02 Occupant Number 02

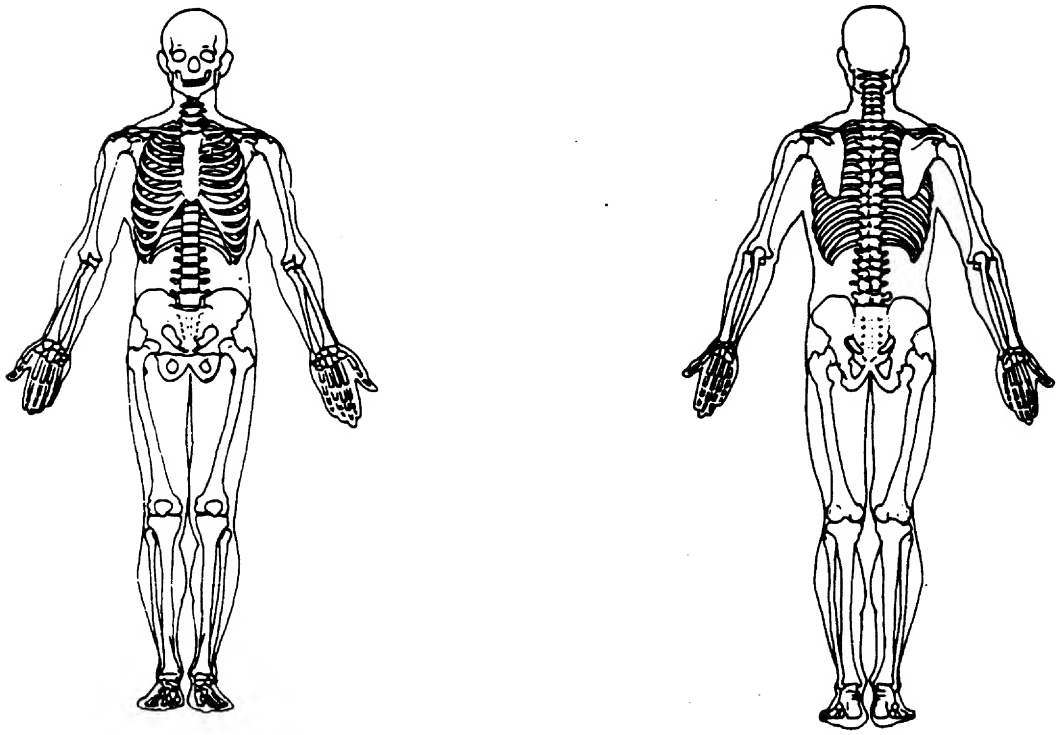
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail,* and *Source* of all injuries. Specify interviewee(s): _____

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

Appendix G:

NASS Occupant Forms: Case Vehicle Driver

U.S. Department of Transportation
National Highway Traffic Safety Administration

O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number: 10
2. Case Number—Stratum: 9103
3. Vehicle Number: 01
4. Occupant Number: 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 80
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 1
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height: 70
Code actual height to the nearest inch.
(99) Unknown

8. Occupant's Weight: 182
Code actual weight to the nearest pound.
(999) Unknown

9. Occupant's Role: 1
(1) Driver
(2) Passenger
(9) Unknown

10. Occupant's Seat Position: 11

Front Seat
(11) Left side
(12) Middle
(13) Right Side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right Side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right Side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right Side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 0
(0) Normal posture
(1) Abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection: 0
(0) No ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown

13. Ejection Area: 0
(0) No ejection
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.)
(specify): _____
(9) Unknown

14. Ejection Medium: 0
(0) No ejection
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify): _____
(5) Integral structure
(8) Other medium (specify): _____
(9) Unknown

15. Medium Status (Immediately Prior to Impact): 0
(0) No ejection
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

16. Entrapment: 0
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
(0) Not entrapped
(1) Entrapped
(9) Unknown

RESTRAINT SYSTEM AND SEAT EVALUATION

17. Manual (Active) Belt System Availability **4**
(0) Not available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown
(8) Other belt (specify): _____
(9) Unknown

18. Manual (Active) Belt System Use **0 4**
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify): _____
(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify): _____
(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts **1**
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

Belt Used Improperly
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of manual belt system (specify): _____
(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident **1**
(0) No manual belt used or not available
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other manual belt failure (specify): _____
(9) Unknown

21. Air Bag System Availability/Function **1**
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment **1**
(0) Not equipped/not available
(1) Air bag deployed during accident
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(9) Unknown

23. Did Air Bag System Fail? **1**
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use **7**
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify): "HARNESS" AND AIRBAG
(8) Restrained, type unknown
(9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position **3**
(0) No head restraints
(1) Integral—no damage
(2) Integral—damaged during accident
(3) Adjustable—no damage
(4) Adjustable—damaged during accident
(5) Add-on—no damage
(6) Add-on—damaged during accident
(8) Other specify): _____
(9) Unknown

26. Seat Type (This Occupant Position) 06
(00) Occupant not seated or no seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., van type)
(09) Other seat type (specify):

_____

(99) Unknown

27. Seat Performance (This Occupant Position) 1
(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks failed
(4) Seat track/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify):

_____

_____

_____

(7) Combination of above (specify):

_____

(8) Other (specify):

_____

(9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 000
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
(997) Other make/model (specify):

_____

(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):

_____

(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):

_____

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):

_____

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):

_____

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 00

32. Child Safety Seat Shield Usage 00

33. Child Safety Seat Tether Usage 00
Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed with Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 3
(0) O—No injury
(1) C—Possible injury
(2) B—Nonincapacitating injury
(3) A—Incapacitating injury
(4) K—Killed
(5) U—Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment—Mortality 3
(0) No treatment
(1) Fatal
(2) Fatal—ruled disease

Nonfatal
(3) Hospitalized
(4) Transported and released
(5) Treatment at scene—nontransported
(6) Treatment later
(8) Treatment—other (specify):

(9) Unknown

36. Type of Medical Facility (for Initial Treatment) 1
(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):

(9) Unknown

37. Hospital stay 3 7
37 Code number of days (up through 60) that the occupant stayed in the hospital
(00) Not hospitalized
(61) 61 days or more
(99) Unknown

38. Working Days Lost 9 7
Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

39. Time to Death 0 0
Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
(00) Not fatal
(96) Fatal—ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 0 0

41. 2nd Medically Reported Cause of Death 0 0

42. 3rd Medically Reported Cause of Death 0 0
Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(97) Other result (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant 0 9
Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

44. Automatic (Passive) Belt System Availability/ Function [0]
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts-type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use [0]
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):

(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type [0]
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive) Belt System [0]
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident [0]
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):

(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):

(9) Unknown

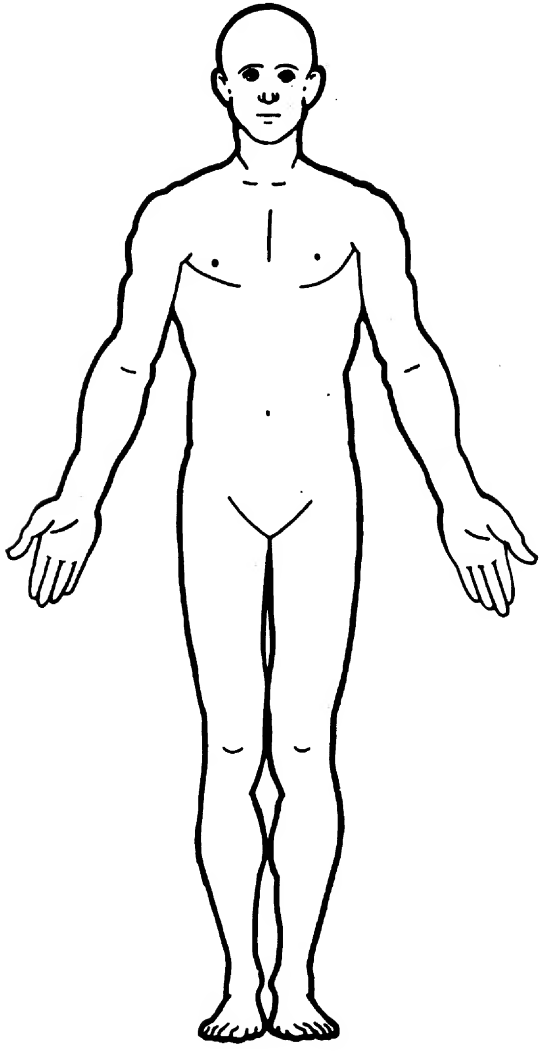
UPDATE CANDIDATE? NO [ ] YES [✓]

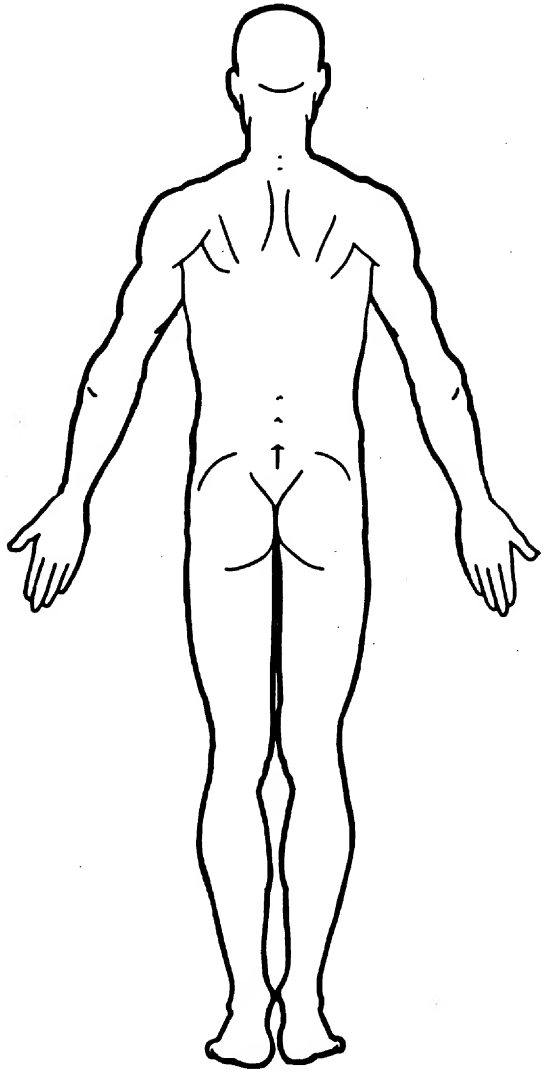
OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES [✓]

*** STOP HERE ***
IF THERE ARE NO RECORDED INJURIES
(I.E., OA43 = 00,97,99)

OFFICIAL INJURY DATA—SOFT TISSUE INJURIES

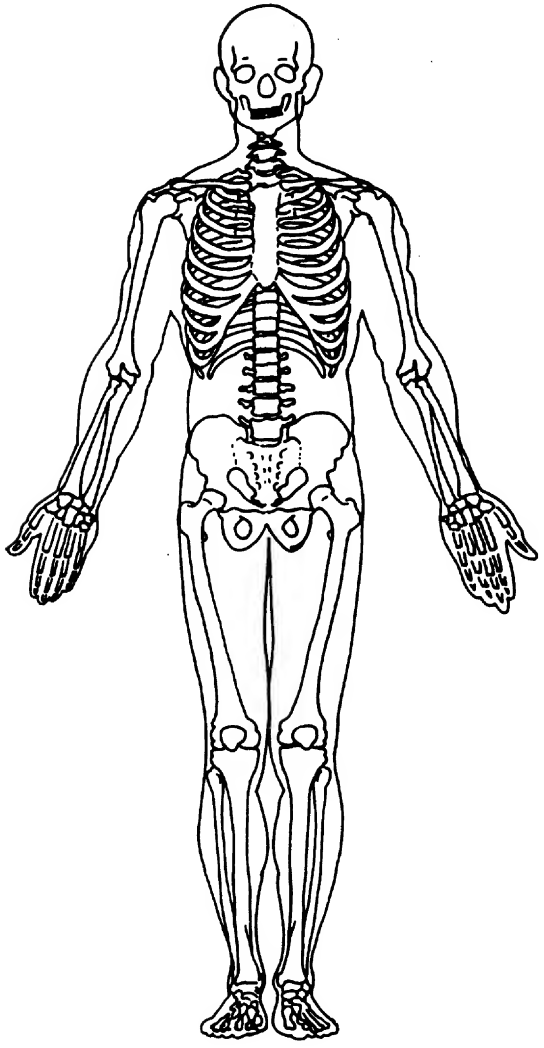
Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

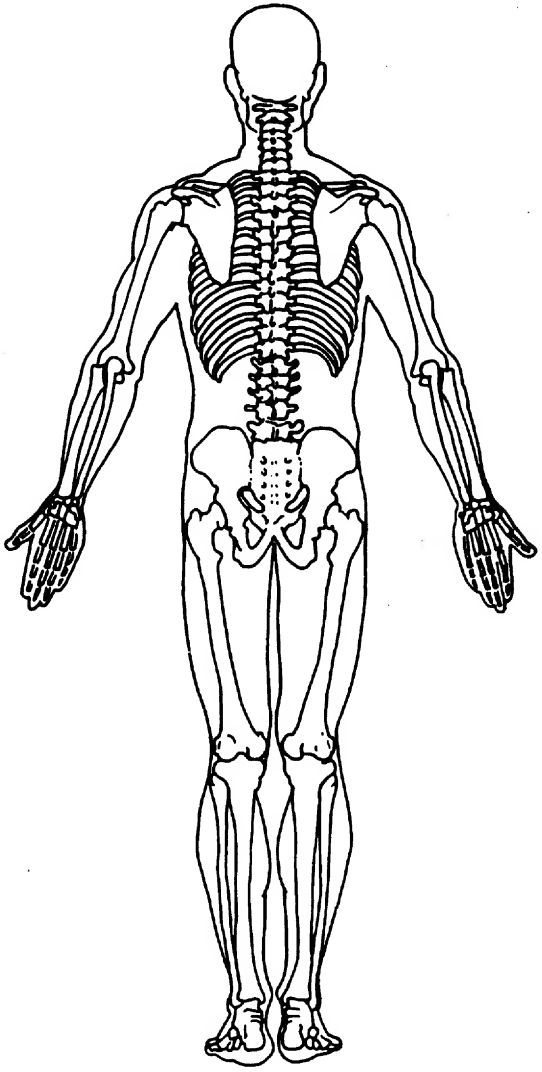




OFFICIAL INJURY DATA – SKELETAL INJURIES

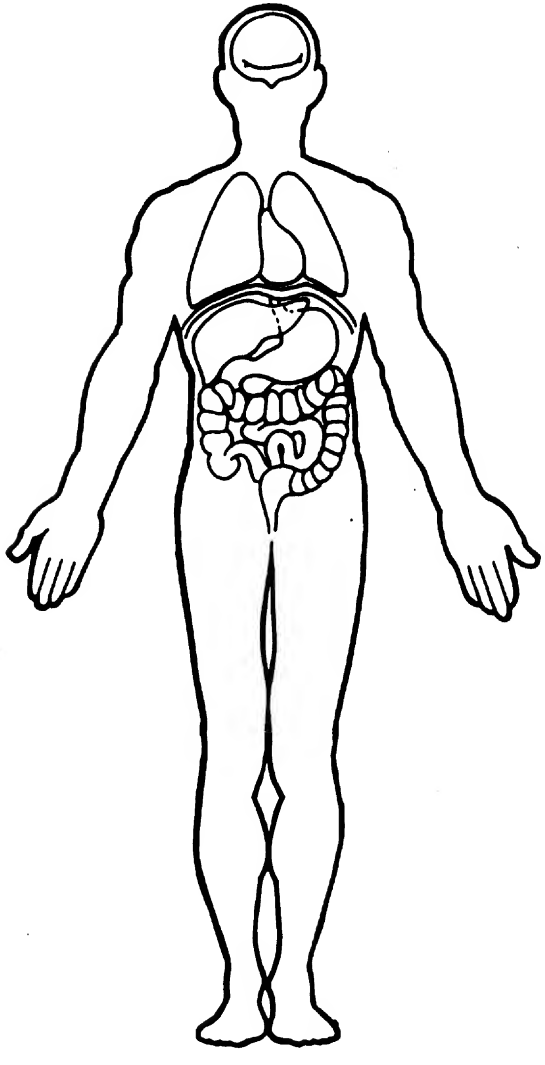
Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

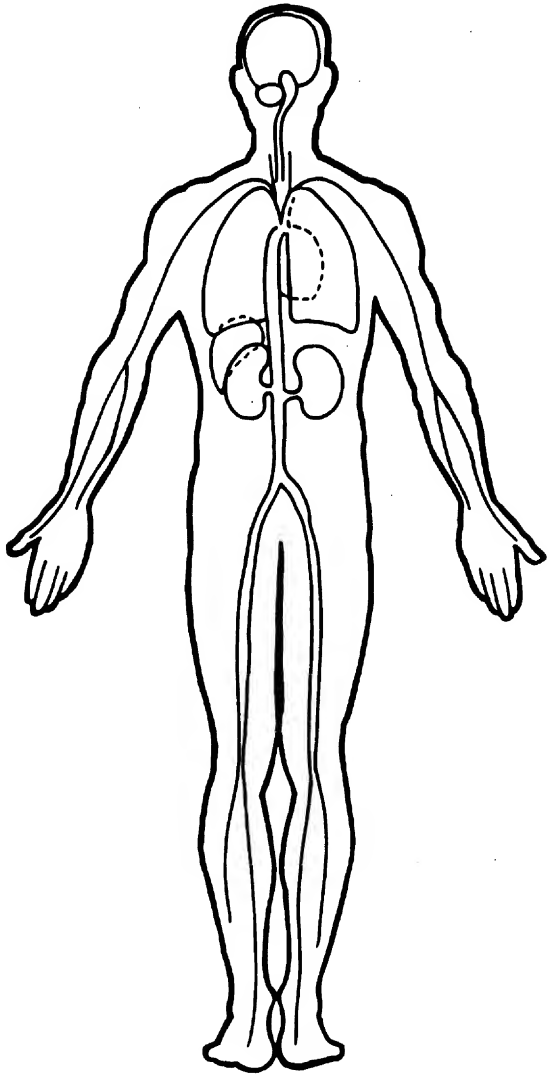




OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number—Stratum: 9103
3. Vehicle Number: 01
4. Occupant Number: 01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 7	6. T	7. R	8. F	9. S	10. 3	11. 09	12. 1	13. 2	14. 97
2nd	15. 7	16. Q	17. R	18. F	19. S	20. 2	21. 59	22. 1	23. 1	24. 10
3rd	25. 7	26. P	27. P	28. C	29. I	30. 2	31. 40	32. 1	33. 1	34. 00
4th	35. 7	36. F	37. S	28. L	39. I	40. 1	41. 45	42. 1	43. 1	44. 00
5th	45. 7	46. C	47. C	48. C	49. I	50. 1	51. 41	52. 1	53. 1	54. 00
6th	55. 7	56. M	57. I	58. C	59. I	60. 1	61. 41	62. 1	63. 1	64. 00
7th	65. 7	66. B	67. I	68. C	69. I	70. 1	71. 40	72. 1	73. 1	74. 00
8th	75. 7	76. W	77. L	78. C	79. I	80. 1	81. 09	82. 2	83. 1	84. 97
9th	85. 7	86. W	87. R	88. C	89. I	90. 1	91. 09	92. 2	93. 1	94. 97
10th	95.	96.	97.	98.	99.	100.	101.	102.	103.	104.

HS Form 433B (1/91)

This report is authorized by P.L. 89-563, Title 1, Section 106, 108, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely.

US Department of Transportation
National Highway Traffic Safety Administration

UPDATE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	10
2. Case Number - Stratum	9103
3. Vehicle Number	01
4. Occupant Number	01

Driver or Occupant Name: _____

Address: _____

_____

Other Information: _____

_____

(Sanitize this section prior to Update submission.)

STATUS OF LOG INJURY INFORMATION

Injury Information: 12

(00) Not medically treated/record not required
(01) No record of treatment at medical facility
(02) Medical release required - not obtained
(03) Injury not related to accident
(04) Noncooperative hospital
(05) Hospital out-of-study area
(06) Private physician would not release data
(07) Unknown if medically treated
(08) To be updated
(09) Record not received before file closeout
(10) Record not obtained
(11) Record obtained
(12) Partial record obtained - not to be updated
(13) Partial record obtained - to be updated

UPDATED CASE INFORMATION

	INITIAL SUBMISSION	UPDATED INFORMATION
GV12. Alcohol Test Result Result for Driver	00	
GV39. Other Drug Specimen Test Type for Driver	0	
GV40.-GV41. Narcotic Drug	00	
GV42.-GV43. Depressant Drug	00	
GV44.-GV45. Stimulant Drug	00	
GV46.-GV47. Hallucinogen Drug	00	
GV48.-GV49. Cannabinoid Drug	00	
GV50.-GV51. Phencyclidine (PCP)	00	
GV52.-GV53. Inhalant Drug	00	
GV54.-GV55. Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	00	
OA05. Occupant's Age	80	
OA06. Occupant's Sex	1	
OA07. Occupant's Height	70	
OA08. Occupant's Weight	182	
OA17. Manual (Active) Belt System Availability	4	
OA18. Manual (Active) Belt System Use	04	
OA21. Air Bag System Availability/Function	1	
OA22. Air Bag System Deployment	1	
OA35. Treatment - Mortality	3	
OA36. Type of Medical Facility (for Initial Treatment)	1	
OA37. Hospital Stay	37	
OA38. Working Days Lost	97	
OA39. Time to Death	00	
OA40. 1st Medically Reported Cause of Death	00	
OA41. 2nd Medically Reported Cause of Death	00	
OA42. 3rd Medically Reported Cause of Death	00	
OA43. Number of Recorded Injuries for This Occupant	09	18
OA44. Automatic (Passive) Belt System Availability/Function	0	
OA45. Automatic (Passive) Belt System Use	0	

INJURY DATA CODED ON INITIAL SUBMISSION

	Source of Injury Data	O.I.C.-A.I.S Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 7	6. T	7. R	8. F	9. S	10. 3	11. 09	12. 1	13. 2	14. 97
2nd	15. 7	16. Q	17. R	18. F	19. S	20. 2	21. 59	22. 1	23. 1	24. 10
3rd	25. 7	26. P	27. P	28. C	29. I	30. 2	31. 40	32. 1	33. 1	34. 00
4th	35. 7	36. F	37. S	38. L	39. I	40. 1	41. 45	42. 1	43. 1	44. 00
5th	45. 7	46. C	47. C	48. C	49. I	50. 1	51. 41	52. 1	53. 1	54. 00
6th	55. 7	56. M	57. I	58. C	59. I	60. 1	61. 41	62. 1	63. 1	64. 00
7th	65. 7	66. B	67. I	68. C	69. I	70. 1	71. 40	72. 1	73. 1	74. 00
8th	75. 7	76. W	77. L	78. C	79. I	80. 1	81. 09	82. 2	83. 1	84. 97
9th	85. 7	86. W	87. R	88. C	89. I	90. 1	91. 09	92. 2	93. 1	94. 97
10th	95.	96.	97.	98.	99.	100.	101.	102.	103.	104.
11th	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.
12th	115.	116.	117.	118.	119.	120.	121.	122.	123.	124.
13th	125.	126.	127.	128.	129.	130.	131.	132.	133.	134.
14th	135.	136.	137.	138.	139.	140.	141.	142.	143.	144.
15th	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.
16th	155.	156.	157.	158.	159.	160.	161.	162.	163.	164.
17th	165.	166.	167.	168.	169.	170.	171.	172.	173.	174.
18th	175.	176.	177.	178.	179.	180.	181.	182.	183.	184.
19th	185.	186.	187.	188.	189.	190.	191.	192.	193.	194.
20th	195.	196.	197.	198.	199.	200.	201.	202.	203.	204.

NOTE: Keep a photocopy of the following original submitted pages when applicable: Exterior Vehicle Form pages 2, 3, 4; Interior Vehicle Form pages 1-reverse, 2, 4, 5; Occupant Injury Form pages 2, 3, 3-reverse; Interview Form pages 3, 4, 5.

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the unofficial and official prior to initial case submission **and from subsequently** acquired medical data. Remember not to double count an injury just because it was identified from two different sources.

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 2	6. T	7. R	8. F	9. 5	10. 3	11. 09	12. 1	13. 2	14. 97
2nd	15. 2	16. Q	17. R	18. Z	19. J	20. 3	21. 59	22. 1	23. 1	24. 10
3rd	25. 2	26. W	27. R	28. F	29. 5	30. 2	31. 09	32. 2	33. 1	34. 97
4th	35. 2	36. C	37. L	28. F	39. 5	40. 1	41. 04	42. 1	43. 1	44. 00
5th	45. 3	46. H	47. W	48. K	49. B	50. 2	51. 04	52. 3	53. 1	54. 00
6th	55. 3	56. F	57. 5	58. L	59. I	60. 1	61. 45	62. 2	63. 1	64. 00
7th	65. 2	66. M	67. I	68. C	69. I	70. 1	71. 41	72. 1	73. 1	74. 00
8th	75. 3	76. W	77. L	78. C	79. I	80. 1	81. 09	82. 2	83. 1	84. 97
9th	85. 2	86. W	87. R	88. C	89. I	90. 1	91. 09	92. 2	93. 1	94. 97
10th	95. 2	96. W	97. R	98. L	99. I	100. 1	101. 09	102. 2	103. 1	104. 97

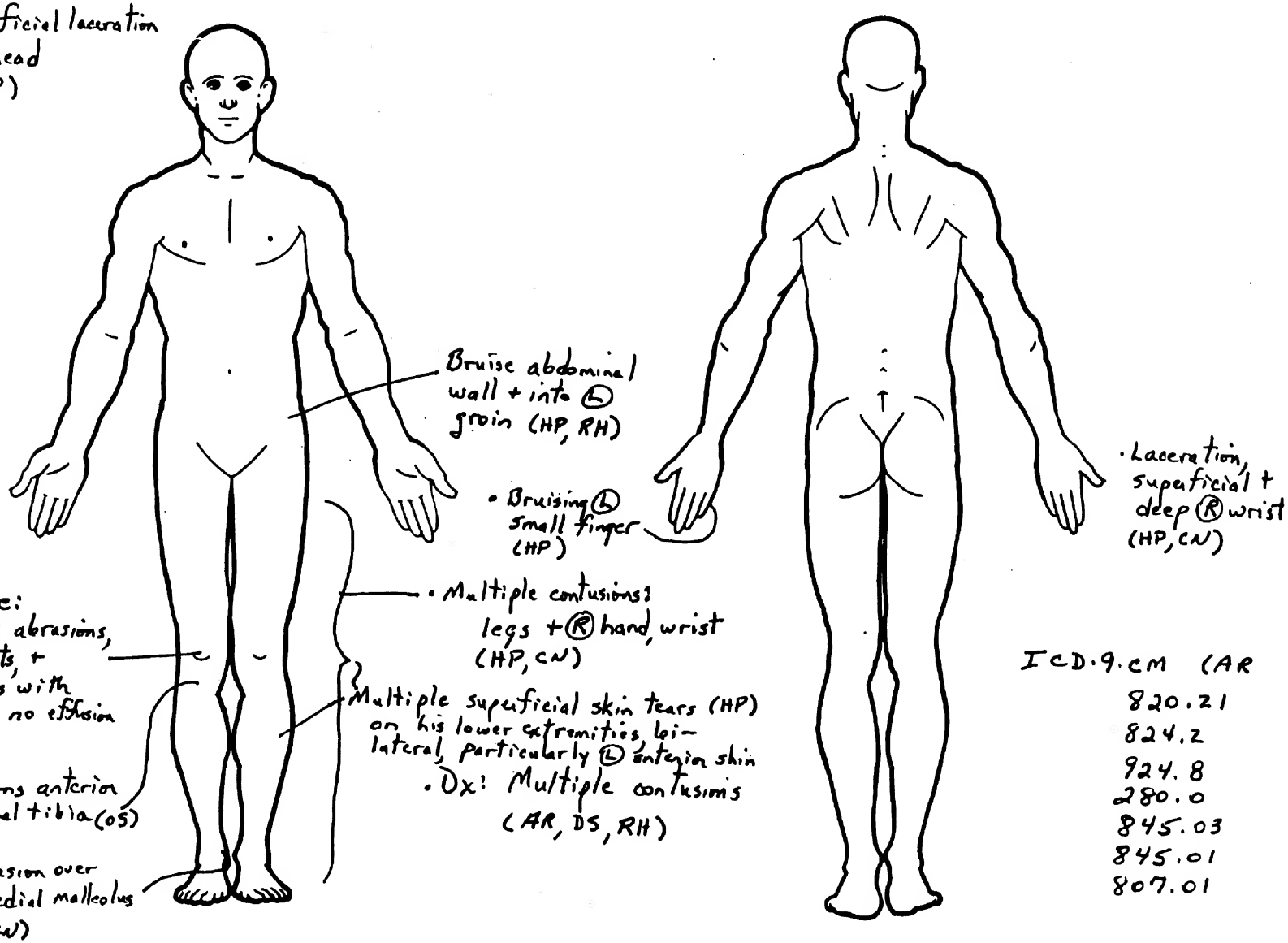
If greater than 10 injuries, code additional on Occupant Injury Data Supplement.

OCCUPANT INJURY DATA

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
11th	2	K	R	C	I	1	09	1	1	97
12th	2	X	R	L	I	1	09	2	1	97
13th	2	X	R	A	I	1	09	2	1	97
14th	3	X	L	L	I	1	09	2	1	97
15th	2	0	W	C	I	1	97	9	7	99
16th	7	P	P	C	I	2	40	1	1	00
17th	7	C	C	C	I	1	41	2	1	00
18th	7	B	I	C	I	1	40	1	1	00
19th	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—

OFFICIAL INJURY DATA – SOFT TISSUE INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



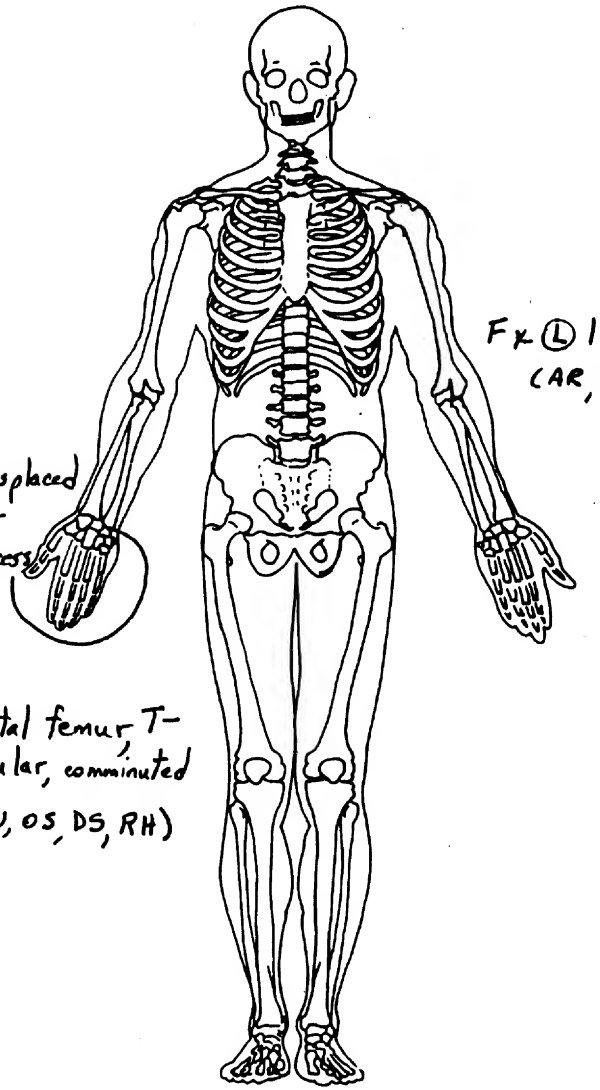
ICD-9-CM (AR

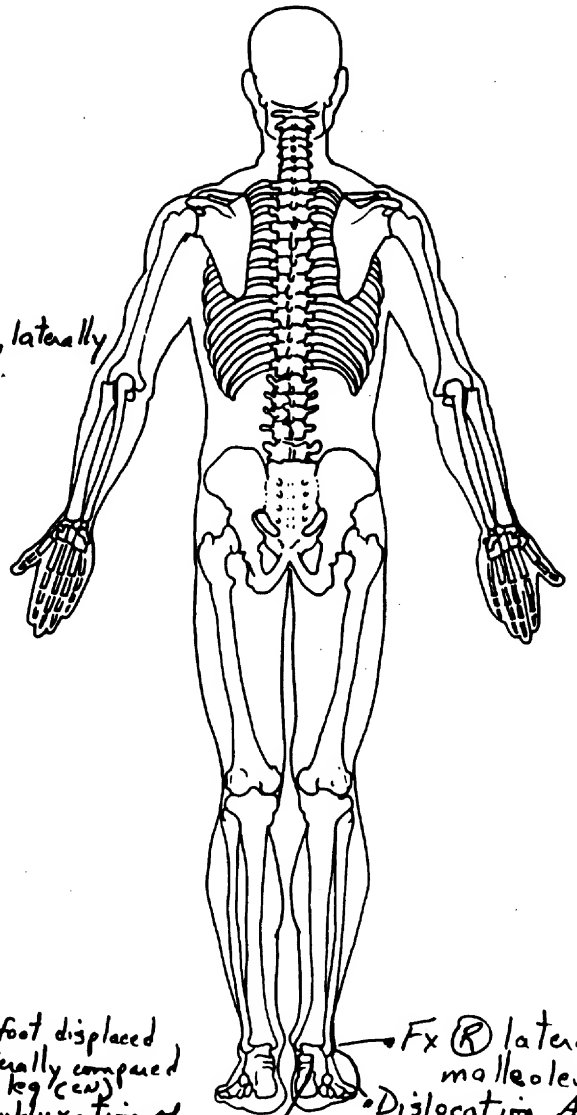
820.21
824.2
924.8
280.0
845.03
845.01
807.01

BAL = 0% (DS)

OFFICIAL INJURY DATA—SKELETAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



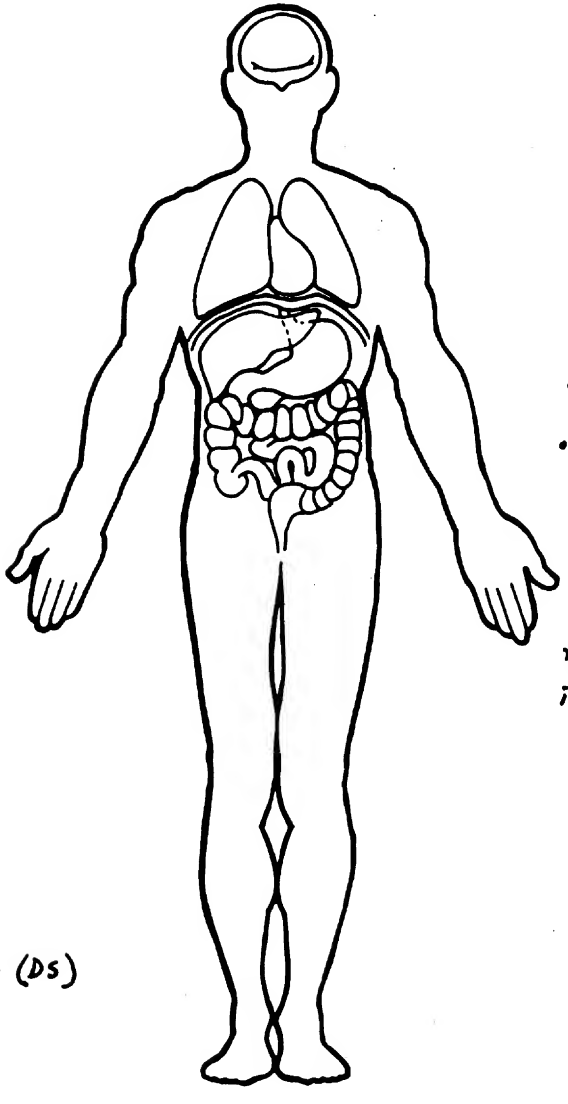


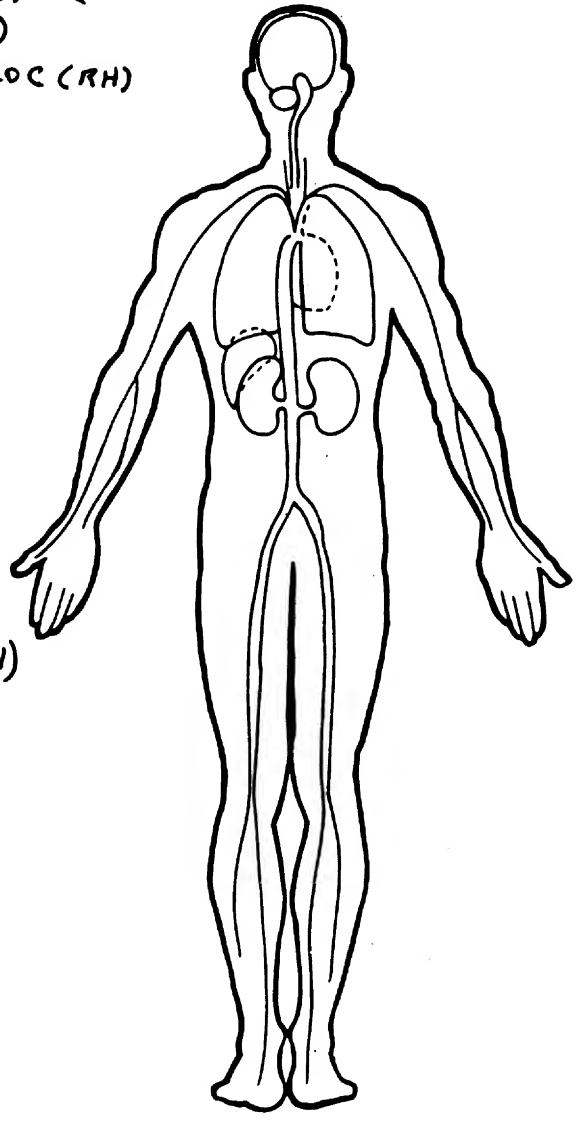
- Small undisplaced Fx Ⓡ ulnar styloid process (DS, RH)
- Fx Ⓡ distal femur T-shaped interarticular, comminuted (AR, HP, CN, OS, DS, RH)
- Fx Ⓛ lower rib, 5th, laterally (AR, DS, RH)
- Ⓡ foot displaced laterally compared to leg (CN)
- Subluxation of talus on tibia (CN)
- Fx Ⓡ lateral malleolus (AR, HP, CN, OS, DS, RH)
- Dislocation Ankle: rupture deltoid ligament rupture tibiofibular ligament (syndesmosis)

OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Does not recall accident (HP, RH)
- Denies LOC (CN)
- No LOC (RH)





- Hematuria (HP, RH
- Normal liver, spleen, pancreas, + kidneys – CT Scan (DS)
- Abdomen sustained no apparent (internal) injury (DS)

- Room air Blood Gas: (DS)

pH 7.48
pO_2 65.5
pCO_2 36.4

BEST AVAILABLE COPY

IN-PATIENT ADMISSIONS

ADM. DATE/TIME [redacted] 08:57PM | MED. REC. NO [redacted]

ROOM/BED	DATE OF BIRTH	AGE	SEX	M/S	RACE	DIAB	C/N	REL.	W/C	PLACE OF BIRTH	SRV	SMK	PUB	AR
[redacted]		80 Y M		M	[redacted]									

NAME AND ADDRESS [redacted]

EMPLOYER/CHURCH [redacted]

NAME AND ADDRESS [redacted]

EMPLOYER [redacted] RETIRED

INSURANCE

[redacted]

NEAREST RELATIVE [redacted] SPOUSE

INSURANCE

MISC

OTHER NOTIFICATION/NEWBORN [redacted]

MEDICAL

ADMITTING PHYSICIAN/CONSULTING PHYSICIAN [redacted]

REF. PHYSICIAN

DIAGNOSIS
MULTIPLE TRAUMA & MULT.FX

PREV. ADMIT DATE/NAME (MAIDEN) [redacted]

	CODE NUMBER
PRINCIPAL DX: (Condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital)	
Fracture right distal femur	820.21
OTHER DX: (All conditions that coexist at the time of admission or develop subsequently, which affect the treatment received and/or length of stay. Diagnoses that relate to an earlier episode which have no bearing on this hospital stay are to be excluded)	
Fractur lateral malleolevs -right	[illegible]
Multiple contusions.	924.
Ruptured tibiofibular syndesmosis right ankle.	959.0
Ruptured deltoid ligament right ankle.	845.03
Anemia due to trauma and blood loss.	285.01
Left lower rib fracture.	807.01
PROCEDURES: (The principal procedure is one which was performed for definitive treatment and that is most related to the principal diagnosis)	
Internal Fixation right femur & ankle [redacted]	79.35
CT abdomen.	79.36
	88.0

DISPOSITION: (please check)

Home Care _____ Other _____

Skilled Nursing Facility _____ Improved _____

Other Nursing Facility _____ Unimproved _____

Transferred (name) _____ Expired _____

"I certify that the narrative descriptions of the principal and secondary diagnoses and the major procedures performed are accurate and complete."

Dict[redacted]

Attending MD Date

Surgeon [redacted] Date [redacted]

ATTESTATION DOCUMENT

Date: [redacted]

ATTENDING PHYSICIAN: [redacted]

PATIENT NAME: [redacted]
ADMISSION DATE [redacted]
DISCHARGE DATE [redacted]
MEDICAL RECORD # [redacted]

	CODES:
PRINCIPAL DIAGNOSIS:	
Fracture right distal femur.	820.21
SECONDARY DIAGNOSIS:	
Fracture lateral malleolus right.	824.2
Multiple contusions.	924.8
Anemia due to trauma and blood loss.	280.0
Ruptured tibiofibular syndesmosis right ankle.	845.03
Ruptured deltoid ligament right ankle.	845.01
Left lower rib fracture.	802.01
PRINCIPAL PROCEDURE:	
Internal fixation right femur and	7935
SECONDARY PROCEDURES:	
ankle.	7936
CT abdomen.	87.01

"I CERTIFY THAT THE NARRATIVE DESCRIPTIONS OF THE PRINCIPAL DIAGNOSIS AND SECONDARY DIAGNOSIS AND THE MAJOR PROCEDURES PERFORMED ARE ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE."

ATTENDING M.D.: [redacted] DATE: [redacted]

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #: [redacted]

DATE OF ADMISSION: [redacted]

CHIEF COMPLAINT: Motor vehicle accident with multiple trauma.

PRESENT ILLNESS: The patient is an 80 year old white male who was apparently involved in an high speed head-on motor vehicle accident on the night of admission. His wife is currently in surgery and not doing well at this time. The patient relates that he does not recall any of the incidents leading up to the motor vehicle accident. They had recently been eating and he did have one beer. His blood alcohol level was well within legal limits at the time of his admission to the Emergency Department.

In the Emergency Department the patient was noted to have an interarticular fracture of the right distal femur, fracture or dislocation of the right ankle. He also had multiple contusions on his legs as well as his right hand. The patient was seen by Dr. [redacted] in consultation and a medical consultation was requested.

PAST MEDICAL HISTORY: Hospitalizations and surgeries--Bilateral implant (lens), carpal tunnel surgery--right upper extremity, hernia repair X 2. Medications--Tegretol 200 mg b.i.d. alternating with 300 mg in the morning and 200 mg at night on alternate days. Aspirin q.a.m. Medication allergies none.

SOCIAL HISTORY: The patient rarely uses alcohol. Cigarettes none.

FAMILY HISTORY: Noncontributory.

REVIEW OF SYSTEMS: Essentially negative except the patient relates that he has had some difficulty in starting his urine. He did have an IVP done recently that does show prostatic hypertrophy. Cardiovascular--The patient denies any cardiac history. He did have an echo done [redacted] that showed essentially normal wall motion with slight dilatation of the left ventricle and left atrium, mild aortic and mitral regurgitation.

PHYSICAL EXAMINATION

HEIGHT: ⊠ WEIGHT: ⊠ BLOOD PRESSURE: ⊠
PULSE: ⊠ RESPIRATIONS: ⊠ TEMPERATURE: ⊠
GENERAL APPEARANCE: The patient is a white male lying on a gerny with his right lower extremity in a cast. He had numerous contusions and bruises noted. He was noted to have a laceration (superficial) on the forehead as well as a laceration, superficial and deep, on his right wrist. He is also noted to have numerous superficial skin tears on his lower extremities bilaterally, particular on the left anterior tibial surface.
HEENT: Pupils were equal, round, reactive to light. He is status post lens implantation. Disk and fundi were normal. TM's were normal bilaterally. External canals were normal. Mouth was without erythema. Dentures were in place. There was

no blood in the mouth. Nose was edematous. The septum appeared to be normal. There was no blood in the passages.
NECK: Somewhat stiff but no thyromegaly was appreciated. There was some tenderness to palpation in the left anterior cervical area.
NODES: Negative.
CARDIOVASCULAR: S1, S2 without gallops or murmurs appreciated. Pulses were 2+ radial, brachial, carotid, femoral, dorsalis pedis, posterior tibialis, popliteal bilaterally except that the right dorsalis pedis and posterior tibialis were not palpable secondary to the cast. There were no bruits in the carotid femoral arteries.
ABDOMEN: There was a bruise noted across the patient's abdominal wall as well as into his left groin area. Negative bowel sounds. There was minimal tenderness to palpation in the left upper quadrant. There was no rebound. Flanks were normal in appearance.
GU: Normal circumcised white male, testicles descended bilaterally. Catheter was in place.
RECTAL: Normal sphincter tone. Large prostate. Heme negative stool.
BACK/EXTREMITIES: Negative clubbing, negative edema appreciated. Contusions as previously mentioned. He was also noted to have bruising on his left small finger.
NEUROLOGIC: Nonfocal.

IMPRESSION AND PLAN:
1. Multiple trauma--a surgical consultation has been obtained to rule out the possibility of an abdominal catastrophe. Cefotan has been started on the patient. Blood cultures have been done. He will be given a tetanus shot on arrival to the floor.
2. Interarticular fracture of the right distal femur and fracture dislocation of the right ankle--this will be scheduled for ORIF of distal femur and ankle [redacted]/91. EKG done in the Emergency Department was normal.
3. Possible left lower rib fractures--rib films will be done on the patient.
4. Hematuria--Will obtain an IVP in the morning to rule out kidney involvement.

Dictated by [redacted] M.D.
[redacted]

_____, M.D.

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #:

DATE OF ADMISSION: [redacted]

PRESENT ILLNESS: 80 year old man was involved in an automobile accident a short time prior to admission. He denies loss of consciousness. He complains of pain in the chest and abdomen as well as the right knee and especially ankle area. X-rays available document a rupture of th tibiofibula syndesmosis with subluxation of the talus on the tibia and a fracture of the lateral malleolus. X-rays of the tibia as available do not document any fracture. Further x-rays are pending.

EXAM: At the right hand and wrist there are multiple minor lacerations and bruises. Neurovascular status is intact. There does not appear to be enough tenderness to be compatible with a fracture. No deformity is present. At the right knee there are multiple abrasions, minor cuts and contusions with swelling in the proximal tibia area. In the knee there is no effusion. Stability of the knee ligaments cannot be adequately tested due to pain. Grossly no instability is discovered. At the right ankle there is obvious deformity with an abrasion and tightness of the skin over the medial malleolus. The foot is displaced lateral compared with the leg. Pedal pulses are palpable on the left. They are trace papable on the right. Neurovascular status including sensibility is intact in the right foot, but sensibility is somewhat decreased on the right compared with the left. No ischemic changes are noted.

IMPRESSION:
1. Rupture, tibiofibular syndesmosis, right ankle.
2. Fracture, lateral malleolus, right ankle.
3. Contusion, right knee.
4. Contusion, right hand and wrist.

PLAN: Further x-rays of the contused areas are pending. Patient's medical condition is being evaluated and stabilized by [redacted] M.D. The ankle was gently reduced and a plaster splint applied. With reduction, the tension on the skin at the medial malleolus was relieved. The patient is scheduled to undergo open reduction and internal fixation of the ankle on [redacted] in the afternoon. This procedure, common complications, expected results and alternate treatment have been discussed in detail with the patient. There is no family available at this time.

Dictated by [redacted] M.D.

[redacted], M.D.

CONSULTATION

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #:

PREOPERATIVE DIAGNOSIS:
Comminuted interarticular fracture right distal femur.
Fracture lateral malleolus right ankle.
Ruptured tibial fibular syndesmosis right ankle.
Ruptured deltoid ligament right ankle.

POSTOPERATIVE DIAGNOSIS: Same.

PROCEDURE:
Open reduction and internal fixation of right distal femur.
Open reduction and internal fixation of right lateral malleolus and tibia-fibular syndesmosis, [redacted]

INDICATION: An 80 year old man involved in an auto accident a short time prior to admission who suffered multiple injuries including the above.

PROCEDURE: Following induction of general anesthesia, he was transferred to a fracture table and the patient was positioned and traction applied. The right lower extremity was then prepped and draped in the usual manner. There were some abrasions on the anterior proximal tibia. An Ioban drape was used to isolate these areas. A lateral incision was then made from the proximal tibia extending proximally across the knee joint and to the midfemur level. Dissection was carried down to expose the lateral aspect of the femur and the fracture site at the subperiosteal level. The femoral condyles were also exposed. There was a T-shaped interarticular fracture with considerable comminution of the distal most portion of the shaft. The condyles were reduced to each other under direct vision and held with a clamp and then fixed with two ASIS type cancellous bone screws with washers. The synthes angled blade plates that was then used. The 7 hole blade plate was selected as providing adequate length for fixation. The bone was aligned both by traction and rotation to provide the best bony contact possible. Some shortening of the extremity was allowed to facilitate healing of the fracture. Using the angle guide, the chisel was passed through the condyles. Through this hole, an 80 mm by 7 hole 95° angle blade plate was then impacted into position and attached to the shaft using both cortical and cancellous screws. One hole was left open because no purchase could be obtained either with the cortical or cancellous screw. This wound was then thoroughly irrigated and closed in layers, completed with staples in the skin. A sterile dressing was applied. Entirely new instruments were brought into the field. The patient was transferred to a regular operating table. Personnel all scrubbed and applied new gloves and gowns. The patient's right lower extremity was then prepped and draped in the usual manner. A lateral incision was made along the lateral side of the ankle beginning at the tip of the malleolus and carried proximal. Dissection was carried down to expose the fibula at the subperiosteal level. A six hole semitubular plate from the synthes large fragment set was selected. This was applied using one cancellous screw passing into the tibia to provide fixation of the mortis and sydesmosis followed by additional cortical screws in the fibula only. X-rays were then taken demonstrating adequate reduction of the ankle and the fracture. This wound was also thoroughly irrigated, then closed in layers complete with staples in the skin. A sterile dressing was applied. A knee immobilizer was applied followed by an air cast splint and the patient returned to the recovery room having tolerated the procedure well.

TRANSFUSIONS: None.

TOURNIQUET: None.

Dictated by [redacted] M.D.

[redacted], M.D.

PATIENT NAME [redacted] MEDICAL RECORD NO. [redacted] ROOM NO. __

DATE OF ADMISSION: [redacted]
DATE OF DISCHARGE: [redacted]

PLACE OF DISCHARGE: The patient will be transferred from the hospital to the rehabilitation unit on [redacted]

DISCHARGE DIAGNOSES:
1. Motor vehicle accident with multiple fractures and contusions.
2. Comminuted interarticular fracture of right distal femur.
3. Fracture lateral malleolus right ankle.
4. Ruptured tibiofibular syndesmosis right ankle.
5. Ruptured deltoid ligament right ankle.
6. Anemia due to trauma and blood loss.
7. Left lower rib fracture.

PROCEDURES DURING ADMISSION: #1, open reduction and internal fixation of right distal femur. #2, open reduction and internal fixation of right lateral malleolus and tibiofibular syndesmosis, both on [redacted]. #3, CT scan of the abdomen revealing normal liver, spleen, pancreas, and kidneys.

SUMMARY OF ADMITTING HISTORY & PHYSICAL: [redacted] is an 80 year old white male who was involved in a high speed head on motor vehicle accident the night of admission. Dr. [redacted] initially saw and evaluated him medically. Dr. [redacted] attended to his orthopedic problems. Exam on admission was significant for multiple fractures and contusions. Please see the admitting history and physical for further details.

HOSPITAL COURSE: The patient was originally admitted to the Progressive Care Unit on a monitor. Orthopedic and surgical consultations were obtained. Dr. [redacted] followed the patient making sure there was no sign of abdominal trauma that would require surgical intervention. It became apparent over the next few days that surgical intervention was not needed and his abdomen sustained no apparent injuries.

On [redacted] the patient underwent orthopedic surgery to repair the fractures mentioned above. This was accomplished without incident and the patient was returned to the Progressive Care Unit. The patient did well in the Progressive Care Unit and did require some blood as his hemoglobin fell postoperatively but overall he continued to improve. His NG tube was able to be stopped. He had no nausea and he started tolerating clear liquids. On the morning of [redacted] the patient was transferred from the Progressive Care Unit to the orthopedic floor on [redacted]. He continued to do well there until his time of transfer to the rehabilitation unit on [redacted]

Concerning his trigeminal neuralgia, the patient had been on Tegretol prior to the time of admission but because of his NPO status was left off the Tegretol. He had no return of the trigeminal neuralgia so it has been elected to simply discontinue the medication at present and will reinstitute Tegretol if the trigeminal neuralgia pain returns.

Initially, the patient had some microscopic hematuria on admission but a CT scan failed to reveal any abnormalitiss of the kidneys and the hematuria did not worsen so no further investigation was made into the kidneys other than routine laboratory testing which failed to reveal any development of renal insufficiency.

Concerning his respiratory status, he has a fracture of the left fifth rib which caused some difficulty with his respiratory status with inability to take deep breaths and minor atelectasis. His oxygenation, however, was adequate and on room air on [redacted] he had a blood gas which revealed a pH of 7.48, pO2 65.5, and pCO2 36.4. The pain he had with coughing and respiration improved during his stay and by the time of release he was able to get three of three triflow balls up and was having significantly less discomfort with respirations.

Concerning elevated liver functions on admission, his liver functions went up some with the SGOT up to 80 but this resolved and the final one on [redacted] was down to 40.

Concerning his fractures, Dr. [redacted] cared for his fractures during the admission and post surgery he was not allowed to bear weight on his right extremity at all. The wounds continued to look good and Dr. [redacted] in a note on [redacted] noted that all the wounds looked good and the patient was ready to be transferred to the rehabilitation unit.

The patient was evaluated by Dr. [redacted] for the rehabilitation unit to see if he was a candidate and it was felt that he would indeed be a good candidate for rehabilitation.

Concerning his cardiac status, the patient was on a monitor while in the Progressive Care Unit and had short runs of PAT. Lanoxin was started and no further runs of PAT was noted. He did continue to have a few PVC's and one short run of either a slow ventricular rhythm or fusion beats. Otherwise, his cardiac status remained entirely stable.

DISCHARGE PLANS: The patient's place of discharge [redacted] rehabilitation unit. Discharge medications - Zantac 150 mg p.o. q.6:00 p.m., Lanoxin 0.125 mg p.o. q. day, Multiple Vitamins one a day, Mylanta p.r.n., Vicodan one q.4 h. p.r.n. pain.

FOLLOW UP: The patient obviously will be involved in intense follow up

on the rehabilitation unit as he attempts to regain his ambulatory independent status. I might also note that the patient's wife died during this motor vehicle accident and the patient will have considerable adjustment to make once going home. Dr. [redacted] and myself will both follow the patient on the rehabilitation unit.

LABORATORY: There were numerous laboratory data obtained during this admission. I will only highlight the ones of significance or those at the time of discharge. As indicated above, a room air blood gas obtained on [redacted] revealed pH 7.48, pO2 65.5, pCO2 36.4. Final glucose was 103. Sodium 137, potassium 4.2, chloride 108, bicarb 28.3. BUN 20, creatinine 0.9. Initial SGOT was 58, final one was 40. Cholesterol was 194 at the highest and 156 at the time of release. Albumin was 3.1 on admission and 2.5 at the time of discharge. Calcium levels were low corresponding to low albumin. Alcohol level was 0% on admission. Hemoglobin was 11.2 at the time of admission and fell in the 8 range two times and was 10.1 at the time of release. Platelet count on [redacted] had risen to 128,000. It had fallen to 98,000 on [redacted]. Final platelet count on [redacted] was 261,000. White count was 17,000 on admission which fell to 7,300 on [redacted]. PT, PTT, and bleeding times were normal on [redacted]. Initial urinalysis had 15-25 red blood cells which had fallen to 8-15 blood cells on [redacted] and that was with a Foley in place. Blood cultures were negative, as well as urine culture during the admission. EKG was completely normal on [redacted]. Final chest x-ray on [redacted] revealed a fracture of the lateral aspect of the right fifth rib. The heart was at the upper limits of normal, otherwise no acute infiltrates were noted and the lungs were not congested. The patient had numerous other x-rays during the admission. These included orthopedic x-rays. I might also note that the patient had a CT scan on [redacted] which was normal.

ADDENDUM TO DISCHARGE DIAGNOSES:

8. Carotid artery atherosclerosis (old diagnosis).
9. Trigeminal neuralgia (old diagnosis).
10. Small undisplaced fracture of the right ulnar styloid process (requiring no specific treatment).

Dictated by [redacted] M.D.

(not edited) [redacted] M.D.

PATIENT NAME: [redacted] MED. REC.#: ROOM #:

DATE OF ADMISSION: [redacted]

HISTORY: [redacted] is an 80 year old, right-handed male who was involved in a motor vehicle accident on [redacted]. He sustained multiple trauma that led to his admission to [redacted] Hospital. Evaluation revealed right femoral fracture, right ankle fracture, right rib fracture, right ulnar styloid fracture, hematuria. C-spine films were negative. In addition he required monitoring and treatment for superventricular tachycardia. [redacted] was a restrained driver. There was no loss of consciousness. Functional status was independent prior to [redacted] He is now requiring assistance with mobility and self-care skills. He is status post fixation of the right femur and ankle fracture on [redacted]

PAST MEDICAL HISTORY: Bilateral lens implants, bilateral carpal tunnel surgery, post hepatic neuritis for which he has been treated with Tegretol with good results. Allergies--None.

SOCIAL HISTORY: [redacted] Wife was involved in the motor vehicle accident as well per chart reportss.

Tobacco--Occasional ethanol use.

Denies headache, visual changes, vertigo, ataxia. Focal weakness. Numbness--difficultis with sphincters, difficulty with speech, swallowing. Memory loss or impairment of consciousness.

Physical examination. Elderly male in no acute distress. Nasal cannula oxygen. Anchored catheter in the peripheral intervenous line. Eyes--Status post bilaterally operative intervention. Exocular motion intact. Neck--Passive range of motion, functional. Extremities--Right knee immobilizer and air cast. Functional range of bilateral upper and left lower extremity. Neurologically alert, oriented X 3. Mood and affect flat. Speech within functional limits. Above to follow multistep commands. Cranial nerves 2 through 12 without gross deficits. Motor--No atrophy. Exam of the right lower extremity is limited, distal strength at least [redacted] left lower extremity strength at least [redacted] bilateral upper extremity approximately [redacted] strength. Tone symmetrical. Sensory intact to pin prick. Deep tendon reflexes within normal limits. Mobility skills were not evaluated at this time. The patient is nonweight bearing on the right lower extremity.

IMPRESSIONS: 80 year old right-handed male, status post motor vehicle accident with multiple trauma, status post internal fixation of right femur and ankle fractures [redacted] Impairments in mobility and self-care skills. Patient is a potential candidate for the Physical Rehab Center. Will need to start physical and occupational therapy. From our reports, he will soon be leaving the unit for continued care on [redacted] I will follow.

Thank you for allowing me to participate in the care of your patient, [redacted]

Dictated by [redacted] M.D.

NOT EDITED BY

[redacted], M.D.

REHAB DISCHARGE SUMMARY

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #:

DATE: [redacted]

HISTORY AND CHIEF COMPLAINT: Decline in functional status.

HISTORY OF PRESENT ILLNESS: [redacted] is an 80 year old right-handed male who was involved in a motor vehicle accident on [redacted] He was a restrained driver, does not remember the actual event. He remembers going by a [redacted] and the next he was surrounded by cars and many individuals. On presentation to [redacted] Hospital evaluation included plain films which revealed right ankle fracture, right distal femoral fracture, right 5th rib fracture, right ulnar styloid fracture, multiple contusions noted about the extremities. Operative intervention with open reduction, internal fixation of the right femoral and ankle fractures on [redacted] In addition, C-spine films were negative and he required treatment for superventricular tachycardia. At the present time he complains of discomfort in multiple locations and a decline in his functional status with limitations of mobility and self-care skills. He was independent in all areas prior to [redacted]

PAST MEDICAL HISTORY: Significant for post herpetic neuralgia involving the proximal left lower extremity. He had been receiving Tegretol with good control. In addition, a history of operative intervention for bilateral carpal tunnel syndrome and bilateral lens implants.

ALLERGIES: No known drug allergies.

MEDICATIONS: Per Dr. [redacted] recommendations on discharge [redacted] Zantac 150 mg q.d., Lanoxin 0.125 mg daily, Mylanta 30 cc p.r.n., Multiple Vitamins 1 daily, Vicodin p.r.n.

SOCIAL HISTORY: [redacted] Spouse was involved in the motor vehicle accident as well. He denies tobacco uses, occasional ethanol use. Denies focal weakness, numbness, change in sphincters, headache, visual changes, ataxia, memory loss, impairment of consciousness.

PHYSICAL EXAMINATION

HEIGHT: WEIGHT: BLOOD PRESSURE:
PULSE: RESPIRATIONS: TEMPERATURE:
GENERAL APPEARANCE: Well developed male in moderate distress with motion.
HEENT: Head is normocephalic without acute trauma. Status post bilateral implants and extraocular motion is intact.
NECK: Passive range of motion functional.
LUNGS: Clear to auscultation.
HEART: Regular rate and rhythm.
ABDOMEN: Multiple bruises. Bowel sounds present. No tenderness to palpation.

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #:

EXTREMITIES: Multiple bruises. Right knee immobilizer and air splint. Range of motion in the major joints were functional. Evauation of the right lower extremity was limited.

NEUROLOGICAL: He was alert, oriented x 3. Mood and affect appropriate. Speech within functional limits. Able to follow 2-step commands. Judgment and insight, concentration and attention were grossly intact. Cranial nerves 2 through 12 without gross deficit. Motor--symmetrical tone, strength approximately 4/5 in the bilateral upper extremities and the left lower extremity, also right distal lower extremity. Sensory intact to gross pin prick upper extremity fine motor coordination symmetrical. Deep tendon reflexes within normal limits with plantars being flexor. Mobility skills are very limited.

IMPRESSION: Status post multiple trauma, status post internal fixation of the right distal femoral fracture and right ankle fracture. Status post right ulnar styloid fracture, status post right 5th rib fracture, history of post herpetic neuritis. Impairments in self-care, mobility skills.

PLAN: Initiate a comprehensive inpatient rehabilitative program utilizing Physical, Occupatinal Therapeis. Therapeutic rec, skilled rehab nursing and social services. Our goals will be independent wheelchair mobility, independent ambulation with an assistive device, independent transfers, bed mobility, independent basic self-care skills, improve strength and endurance.

ESTIMATED LENGTH OF STAY: 21 days. Anticipated disposition home. Will continue medications as per Dr. [redacted] recommendations. He will be nonweight bearing on the right lower extremity.

Dictated by [redacted] M.D.

NOT EDITED BY

[redacted], M.D.

REHAB HISTORY AND PHYSICAL

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #:

DATE OF ADMISSION: [redacted]

DATE OF DISCHARGE: [redacted]

ADMITTING DIAGNOSIS: Rehabilitation, multiple trauma, status post open reduction and internal fixation of right distal femur and ankle fracture.

DISCHARGE DIAGNOSIS: Same.

PROCEDURES: None.

COMPLICATIONS: None.

HISTORY: [redacted] is an 80 year old right-handed male who was involved in a motor vehicle accident on [redacted] with resultant multiple trauma. After acute medical stability, including ORIF of the right femur and ankle on [redacted] he was transferred to the Physical Rehab Center. In addition, he had a fracture of the right ulnar styloid and right fifth rib fracture.

On admission he was afebrile. His vital signs were stable. Lungs were clear. Heart--regular rate and rhythm. Abdomen--soft; bowel sounds present; no masses or tenderness to palpation. The extremities revealed multiple bruises. His right knee was immobilized, and he had an air cast on the ankle. He was neurovascularly intact. For more details please see the dictated version of the admitting history and physical.

Physicians also participating in his care include Drs. [redacted].

HOSPITAL COURSE: The comprehensive inpatient rehabilitative program was initiated utilizing skilled rehab nursing, physical, occupational therapies, neuropsychology, and therapeutic rec services. Social services assisted as well.

Medications were continued and included Zantac, 150 mg daily; Lanoxin, 0.125 mg daily; Mylanta, p.r.n.; and multiple vitamin, 1 daily; Vicodin, p.r.n.; and Tylenol, grains 10, p.r.n.

We continued a nonweight-bearing status on the right lower extremity. [redacted] remained medically stable during his stay in the Physical Rehab Center. His progress in the therapies was good, with improvements in functional mobility, ambulation, and self-care. His adjustment to the unit was good, and his tolerance for the therapies was good as well. His progress is documented in dictated versions of our interdisciplinary team meetings.

At the time of his disposition, his operative wound was healing well. He was in medically stable condition, afebrile, vital signs stable. He was able to perform transfers independent, bed mobilities independent, ambulation with walker or crutches independently. He was able to dress independent with assistive device, perform bath transfers independently with walker. He has shown improvements in his endurance as well. He was independent in leisure skills. He was discharged home. He will utilize [redacted] for transportation, and have an in-home housekeeper for assistance. Occupational and physical therapy was continued with a home program. Followup appointments were made with Dr. [redacted] in one week; Dr. [redacted] myself, within one month.

MEDICATIONS: Lanoxin, 0.125 mg daily and Extra-Strength Tylenol, p.r.n.

Dictated by [redacted] M.D.
cab [redacted]

NOT EDITED BY
[redacted], M.D.

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #:

[redacted] has done very well during his stay on the Physical Rehab Center. Nursing reports that he is ready for disposition. He is independent in his activities of daily living, has good wound healing.

Physical Therapy notes that he is independent in straight leg raising and quad sets. He is transferring independently, performing bed mobility independently, ambulating with walker and/or crutches independently. Plans are to continue with a home program on his disposition.

Occupational Therapy notes strength in bilateral upper extremities within functional limits with improved grip of 10 pounds. Dressing independent with assistance devices, bath transfers independent with walker, improvement noted in endurance as well. Plans are to continue with home program.

Therapeutic Rec notes independence in leisure skills.

Neuropsychology does not have any additional comments.

Social Services notes that he will be utilizing [redacted] for transportation and will have a housekeeper on a daily basis on disposition.

Our plans are to discharge him on [redacted] with home program for Occupational and Physical Therapy, and followup appointments with Dr. [redacted] and Dr. [redacted]

Dictated by [redacted] M.D.

[redacted]

NOT EDITED BY

[redacted], M.D.

DISCHARGE INTERDISCIPLINARY TEAM MEETING

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #:

DATE OF SURGERY: [redacted]

PRESENT ILLNESS: 80 year old man involved in an auto accident [redacted] suffering multiple injuries including a rupture of the tibiofibular syndesmosis of the right ankle and fracture of the lateral malleolus. He also had a fracture of the distal femur. These injuries were treated with internal fixation. He now returns for removal of the transverse cancellous screw at the distal fibula fixing it to the tibia.

PAST HISTORY:

Allergies - Denied.

Medicines - Zantac 150 mg q.d. and Lanoxin 0.125 mg q.d.

Surgeries - Bilateral cataract extraction with a lens implant. Carpal tunnel surgery, right. Hernia repair twice.

Other Admissions - Denied.

PHYSICAL EXAMINATION

HEIGHT: WEIGHT: BLOOD PRESSURE:
PULSE: RESPIRATIONS: TEMPERATURE:
GENERAL APPEARANCE: The patient is alert, oriented, and afebrile.
SKIN: Clear.
HEENT: Head--no injuries. Eyes--EOM and vision intact. Pupils round, equal, and reactive. ENT--hearing intact. No inflammation or injury.
NECK: Supple. Nontender. No masses palpable.
BACK, THORAX AND PELVIS: Nontender.
LUNGS: Clear.
HEART: Regular without murmur.
ABDOMEN: Bland. Normoactive bowel sounds. No masses palpable.
RECTAL & GENITAL: Deferred.
NEUROLOGICAL: Grossly intact.
EXTREMITIES: At the right lower extremity there is a surgical incision at the knee which is well healed. There is minimal swelling or tenderness at the knee. No instability is present. Range of motion not evaluated. At the ankle, the operative wound is well healed. Neurovascular status remains intact.

IMPRESSION:
1. Fracture right lateral malleolus.
2. Fracture tibiofibular syndesmosis.
3. Fracture right distal femur.

Dictated by [redacted] M.D.

[redacted]

PATIENT NAME: [redacted] MED. REC.#: [redacted] ROOM #:

PREOPERATIVE DIAGNOSIS:
1. Healed fracture, right lateral malleolus.
2. Rupture tibiofibular syndesmosis.

POSTOPERATIVE DIAGNOSIS: Same.

PROCEDURE: Removal of internal fixation, superficial right ankle [redacted]

INDICATION: See history and physical.

PROCEDURE: The right lower extremity was prepped and draped in the usual manner. Following induction of general anesthesia, a 2 cm incision was made through the previous operative site directly over the cancellous screw. This was then removed without difficulty. The wound was thoroughly irrigated and inspected. It was closed with 4-0 nylon in the skin. A sterile dressing was applied. The patient returned having tolerated the procedure well. The patient has been instructed in the care of his injury. No family is available for instructions, but patient appears to understand well. He has analgesics available. He will be seen in the office in about 10-12 days, sooner if any problems. He understands to continue nonweight bearing on the right lower extremity and to continue with the knee splint on the right.

Dictated by [redacted] M.D.

[redacted], M.D.

OPERATIVE REPORT

Appendix H:

NASS Occupant Forms: Case Vehicle Passenger

U.S. Department of Transportation
National Highway Traffic Safety Administration

O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 01
4. Occupant Number: 02

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 81
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 2
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height: 62
Code actual height to the nearest inch.
(99) Unknown

8. Occupant's Weight: 160
Code actual weight to the nearest pound.
(999) Unknown

9. Occupant's Role: 2
(1) Driver
(2) Passenger
(9) Unknown

10. Occupant's Seat Position: 13

Front Seat
(11) Left side
(12) Middle
(13) Right Side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right Side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right Side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right Side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 0
(0) Normal posture
(1) Abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection: 0
(0) No ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown

13. Ejection Area: 0
(0) No ejection
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.)
(specify): _____
(9) Unknown

14. Ejection Medium: 0
(0) No ejection
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify): _____
(5) Integral structure
(8) Other medium (specify): _____
(9) Unknown

15. Medium Status (Immediately Prior to Impact): 0
(0) No ejection
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

16. Entrapment: 0
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
(0) Not entrapped
(1) Entrapped
(9) Unknown

RESTRAINT SYSTEM AND SEAT EVALUATION

17. Manual (Active) Belt System Availability — 4
(0) Not available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown
(8) Other belt (specify): _____
(9) Unknown

18. Manual (Active) Belt System Use — 04
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify): _____
(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify): _____
(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts — 1
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

Belt Used Improperly
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of manual belt system (specify): _____
(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident — 1
(0) No manual belt used or not available
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other manual belt failure (specify): _____
(9) Unknown

21. Air Bag System Availability/Function — 1
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment — 1
(0) Not equipped/not available
(1) Air bag deployed during accident
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(9) Unknown

23. Did Air Bag System Fail? — 1
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use — 7
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify): "HARNESS" AND AIRBAG
(8) Restrained, type unknown
(9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position — 3
(0) No head restraints
(1) Integral—no damage
(2) Integral—damaged during accident
(3) Adjustable—no damage
(4) Adjustable—damaged during accident
(5) Add-on—no damage
(6) Add-on—damaged during accident
(8) Other specify): _____
(9) Unknown

26. Seat Type (This Occupant Position) 06
(00) Occupant not seated or no seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., van type)
(09) Other seat type (specify):

_____

(99) Unknown

27. Seat Performance (This Occupant Position) 1
(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks failed
(4) Seat track/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify):

_____

_____

_____

(7) Combination of above (specify):

_____

(8) Other (specify):

_____

(9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 000
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
(997) Other make/model (specify):

_____

(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):

_____

(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):

_____

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):

_____

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):

_____

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 00

32. Child Safety Seat Shield Usage 00

33. Child Safety Seat Tether Usage 00
Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed with Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 4
(0) O—No injury
(1) C—Possible injury
(2) B—Nonincapacitating injury
(3) A—Incapacitating injury
(4) K—Killed
(5) U—Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment—Mortality 1
(0) No treatment
(1) Fatal
(2) Fatal—ruled disease

Nonfatal
(3) Hospitalized
(4) Transported and released
(5) Treatment at scene—nontransported
(6) Treatment later
(8) Treatment—other (specify):

_____

(9) Unknown

36. Type of Medical Facility (for Initial Treatment) 1
(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):

_____

(9) Unknown

37. Hospital stay 01
____ Code number of days (up through 60) that the occupant stayed in the hospital
(00) Not hospitalized
(61) 61 days or more
(99) Unknown

38. Working Days Lost -6-
62 Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

39. Time to Death 04
4 hrs 20 minutes Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
(00) Not fatal
(96) Fatal—ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 99

41. 2nd Medically Reported Cause of Death 00

42. 3rd Medically Reported Cause of Death 00
____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(97) Other result (specify):

_____

(99) Unknown

43. Number of Recorded Injuries for This Occupant 16
16 Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

44. Automatic (Passive) Belt System Availability/ Function 0
- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts-type unknown

Non-functional
- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

45. Automatic (Passive) Belt System Use 0
- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____
- (3) Automatic belt use unknown
- (9) Unknown

46. Automatic (Passive) Belt System Type 0
- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

47. Proper Use of Automatic (Passive) Belt System 0
- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
- (8) Other improper use of automatic belt system (specify): _____
- (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident 0
- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify): _____
- (9) Unknown

UPDATE CANDIDATE? NO [ ] YES [✓]

OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES [✓]

*** STOP HERE ***
IF THERE ARE NO RECORDED INJURIES
(I.E., OA43 = 00,97,99)

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 01
4. Occupant Number: 02

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. H	7. A	8. L	9. B	10. 4	11. 11	12. 3	13. 1	14. 03
2nd	15. 1	16. H	17. A	18. U	19. B	20. 4	21. 11	22. 3	23. 1	24. 03
3rd	25. 1	26. C	27. L	28. C	29. P	30. 3	31. 11	32. 2	33. 1	34. 03
4th	35. 1	36. C	37. R	28. C	39. P	40. 3	41. 11	42. 2	43. 1	44. 03
5th	45. 1	46. C	47. L	48. L	49. P	50. 3	51. 11	52. 2	53. 1	54. 03
6th	55. 1	56. C	57. R	58. L	59. P	60. 3	61. 11	62. 2	63. 1	64. 03
7th	65. 1	66. M	67. S	68. L	69. D	70. 2	71. 11	72. 2	73. 1	74. 03
8th	75. 1	76. M	77. L	78. U	79. Q	80. 2	81. 11	82. 2	83. 1	84. 03
9th	85. 1	86. C	87. U	88. F	89. S	90. 3	91. 11	92. 2	93. 1	94. 03
10th	95. 1	96. R	97. L	98. F	99. S	100. 2	101. 11	102. 1	103. 2	104. 03

HS Form 433B (1/91)

This report is authorized by P.L. 89-563, Title 1, Section 106, 108, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely.

OCCUPANT INJURY DATA

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
11th	1	R	R	F	5	2	11	1	2	03
12th	1	L	L	F	5	2	56	2	2	02
13th	1	L	R	F	5	2	56	2	2	02
14th	1	L	L	F	5	2	56	2	2	02
15th	1	L	R	F	5	2	56	2	2	02
16th	6	C	U	C	I	1	41	2	1	00
17th	—	—	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—

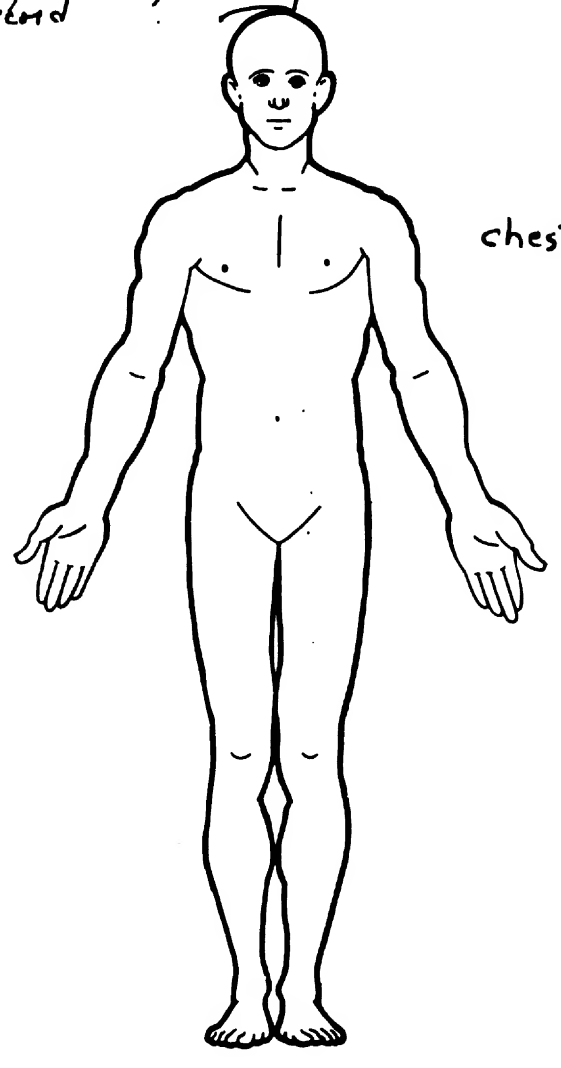
OFFICIAL INJURY DATA—SOFT TISSUE INJURIES

• Seat belt on (ET)

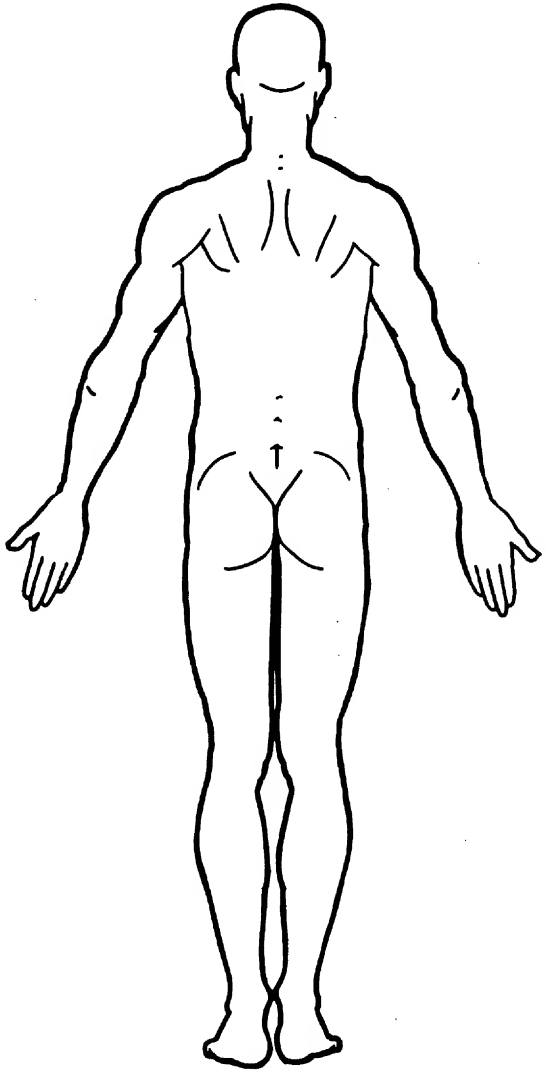
Time to Death— 4 hours + 20 minutes

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

[Preliminary Autopsy Report
EMS Record



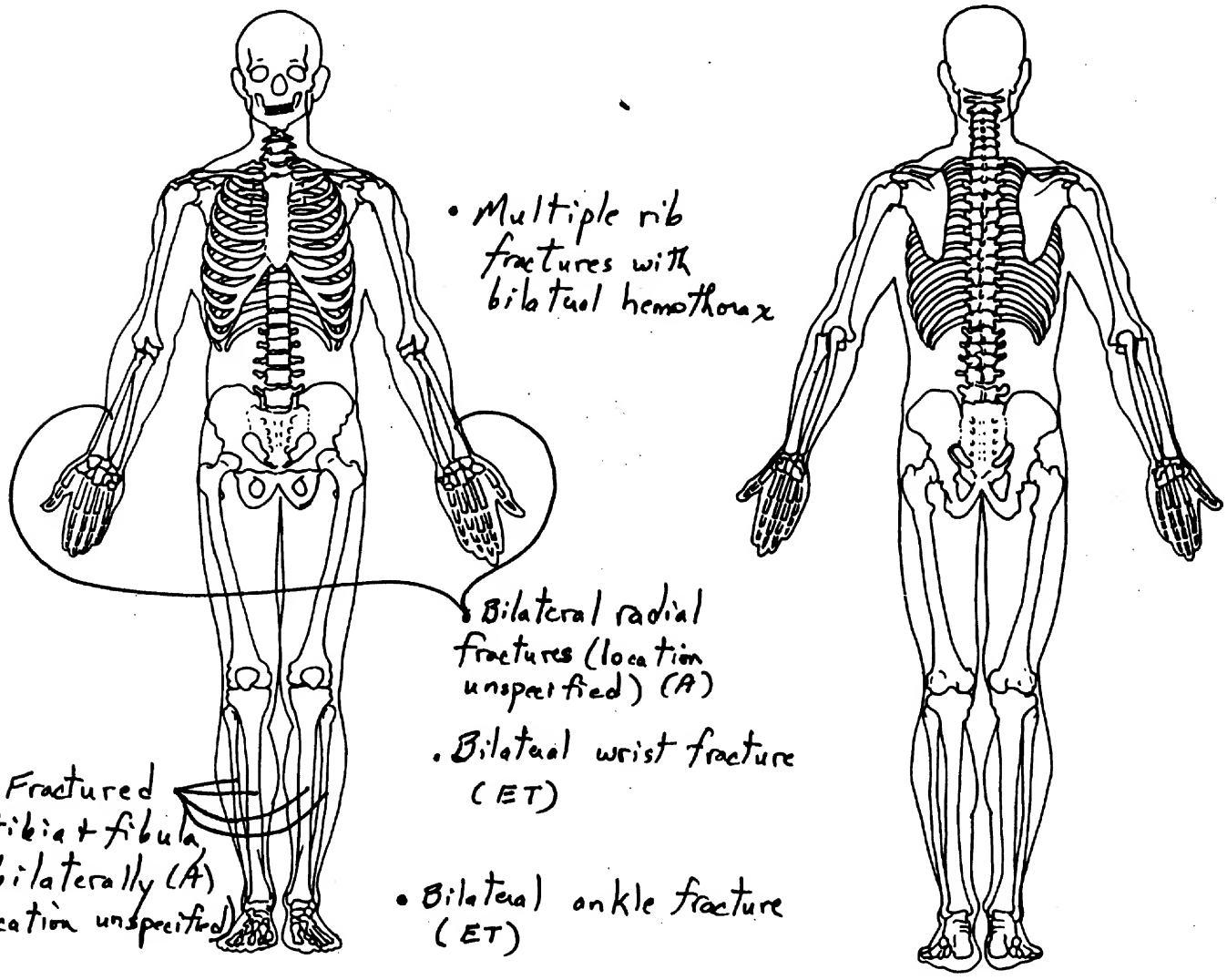
chest contusion (ET)



Cause of Death: Multiple traumatic injuries due to motor vehicle accident.

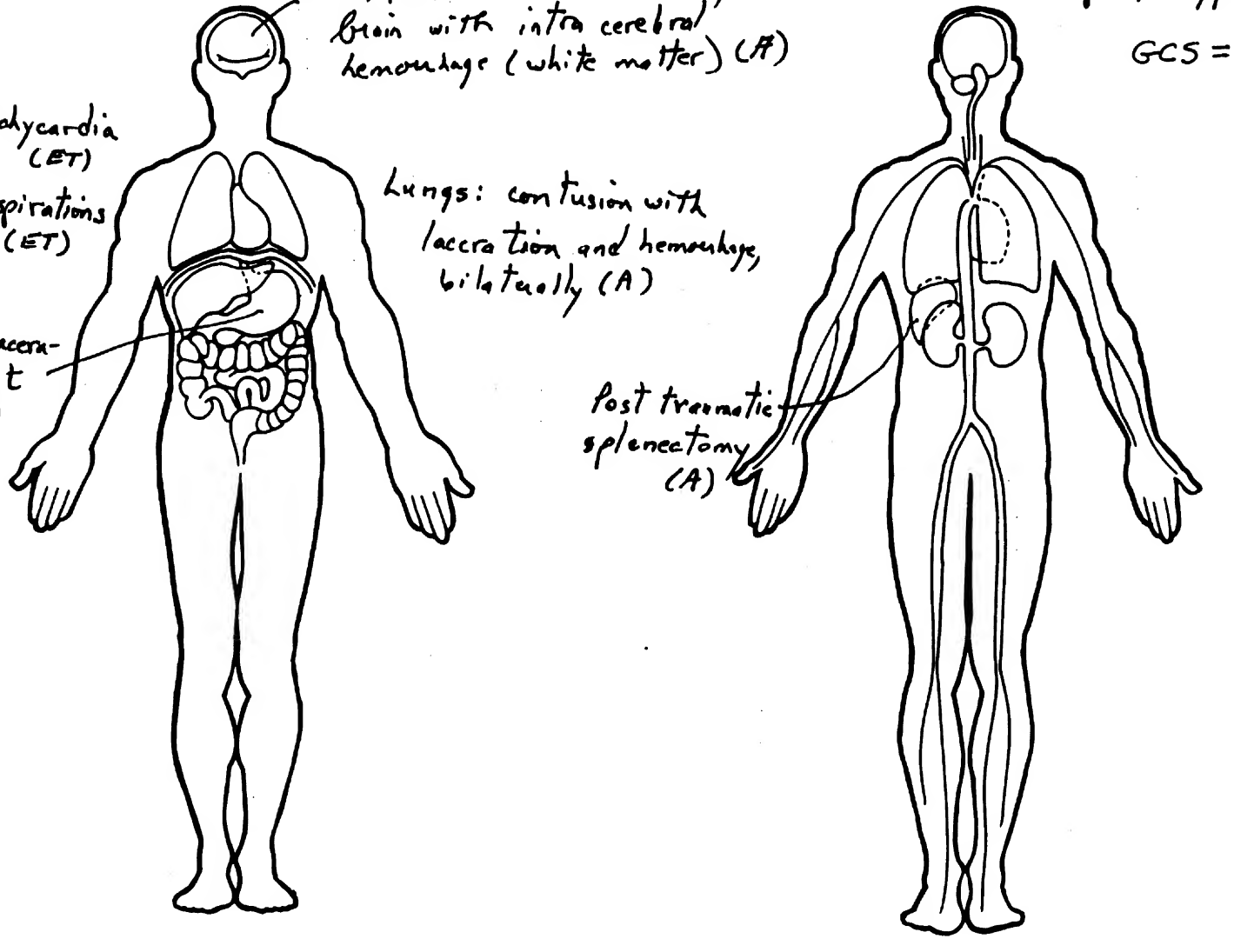
OFFICIAL INJURY DATA – SKELETAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



[redacted] MEDICAL LABORATORIES
at
[redacted] HOSPITAL
Department of Pathology [redacted] Preliminary Autopsy Report

Name: [redacted] Hospital: # [redacted] Autopsy: # [redacted]
Sex: Female Age: 81 Date: [redacted]

Date of Death: [redacted] Hour: 8:48 p.m.
Date of Autopsy: [redacted] Hour: [redacted]

Performed by: [redacted] M.D.

Copies to: [redacted] County Coroner

Death Certificate signed as follows:

Immediate Cause of Death: Multiple traumatic injuries

Due To: Motor vehicle accident

Due To:

Other Conditions:

The following is a summary of the pertinent gross findings. A complete report will be sent to you at the completion of our studies.

SUMMARY:

The autopsy is performed on the unembalmed body of a Caucasian female identified as [redacted]. Permission for the autopsy is granted by the [redacted] County Coroner, Mr. [redacted] and is unrestricted.

The pathologic findings related to the immediate cause of death are multiple traumatic injuries due to motor vehicle accident, namely: laceration of the brain with intracerebral hemorrhage (white matter), left frontal lobe; multiple rib fractures; hemothorax, bilateral; lungs, contusion with laceration and hemorrhage, bilateral; status post traumatic splenectomy, recent; status post repair of stomach laceration, recent; radial fractures, bilateral; bilateral fractures of tibia and fibula.

In summary, the immediate cause of death is multiple traumatic injuries.

[redacted]

[redacted] M.D.
Resident

[redacted] M.D.
Pathologist

BEST AVAILABLE COPY

[redacted]

EMS EMERGENCY MEDICAL SERVICE

☒ ADVANCE LIFE SUPPORT ☐ BASIC LIFE SUPPORT ☐ TRANSFER

DATE [redacted] | TIME 5/6/03 | DISP TIME 16 32 | EN ROUTE TIME 16 43 | ON A TIME 16 58 | AT HOSP 17 01 | MILES

PATIENT NAME [redacted] | ADDRESS [redacted] | DOB [redacted] | AGE 81 | SEX F

CHIEF COMPLAINT [redacted] | ☐ HOME ☐ STREET/HWY ☐ ON THE JOB ☐ PUBLIC PLACE ☐ SEE COMMENTS

LOCATION OF CALL [redacted] S & [redacted] E | CONDITION ON ARRIVAL Critical

VITAL SIGNS	CALL ORDERED BY [redacted]		DELIVERED TO [redacted]			EKG MONITOR LEAD II ☐ SEE ATTACHED EKG SHEET
TIME	16.43	16.55	17 15	17 30	/ /	/ / Sinus Tachycardia
BP	50/30	72/palp	84/palp	88/50	/ /	/ / VFIB
PULSE	120 R	120 R	110 R	100 R	/ /	/ / DEFIBRILLATION # AT WATT SEC
RESP	Agonal	Intubated	8.0 mm	ETT/30/m.o	/ /	/ /
O2	☐ ROOM AIR ☐ O P AIRWAY	☐ CANNULA LPM	☐ SIMPLE MASK LPM	☐ NON-REBREATHER LPM	☐ E.T. TUBE 20 mm	☐ AMBU LPM

IV FLUIDS SITE LOCATION 16g x 3 2 in R forearm 1 in L forearm

TIME	FLUID	AMOUNT IN/MG	RATE	MEDICATIONS	DOSE	ROUTE	TIME	TIME	TIME	TOTAL DOSE
16.46	NS	1000 cc	W/O	Epinephrine	1 mg	IVP	16 47			1 mg
16.48	NS	1000 cc	W/O	[redacted]						
16.50	LR	1000 cc	W/O							
		~~1000~~ cc								
	MIXED IV:	cc								
	TOTAL FLUID GIVEN:	3500 CC'S								

EYES	OPEN	SPONTANEOUSLY 4
		TO VERBAL COMMAND 3
		TO PAIN 2
	NO RESPONSE	1
BEST MOTOR RESPONSE	TO VERBAL COMMAND	OBEYS 6
	TO PAINFUL STIMULUS	LOCALIZES PAIN 5
		FLEXION-WITHDRAWAL 4
		FLEXION-ABNORMAL 3
		EXTENSION 2
	NO RESPONSE	1
BEST VERBAL RESPONSE	ORIENTED & CONVERSES	5
	DISORIENTED & CONVERSES	4
	INAPPROPRIATE WORDS	3
	INCOMPREHENSIBLE SOUNDS	2
	NO RESPONSE	1
TOTAL	(3)	3-15

PUPILS

	R	L
	☐ DILATED	☐
	☐ NORMAL	☐
	☐ CONSTRICTED	☐
	☐ NON-REACTIVE	☐
	☐ CATARACT/SURG	☐
	☐ BLIND	☐

TIME [redacted] — mid point sluggish

	R	L
	☐ DILATED	☐
	☐ NORMAL	☐
	☐ CONSTRICTED	☐
	☐ NONREACTIVE	☐
	☐ CATARACT/SURG	☐

TIME [redacted]

APPEARANCE

SKIN TEMP: ☐ NORMAL ☐ HOT ☐ COLD ☐ DRY ☐ DIAPHORETIC ☐ pale

COLOR: ☐ NORMAL ☐ PALE ☐ MOTTLED ☐ FLUSHED ☐ DUSKY ☒ CYANOTIC

BREATHING

☐ NORMAL ☐ LABORED ☐ SHALLOW ☐ DEEP ☐ RALES ☐ RHONCHI ☐ WHEEZING ☐ STRIDOR

Agonal

BREATH SOUNDS: ☐ EQUAL ☐ UNEQUAL ☐ ABSENT WHERE

ALLERGIES unknown

CURRENT MEDICATIONS unknown

FAMILY PHYSICIAN unknown

PATIENT HISTORY ☒ ☐ NIDDM, S.H.D. ☐ C.H.F ☐ CVA ☐ HYPERTENSION ☐ C.O.P.D. ☐ ASTHMA ☐ DIABETIC ☐ SEIZURES ☐ KIDNEY DISEASE ☐ LIVER DISEASE ☐ C.A. ☐ E.T.O.H. ☐ O.B.S. ☐ OTHER ☐ SEE COMMENTS

81 W/F

C/c multiple Trauma. Poss head injury, bilateral chest injury, poss Hip (R), bilateral wrist Fx, bilateral ankle Fx.

HxPI 10-50 PI, Passenger front seat, seat belt on High speed, head on. Two fatels in other car. Driver in her car stable

PmHx unknown ~~Exam~~ Tx Hx PE, vitals, C-spine, long board intubate, Heart mon IV x3 mast pants

Exam un-res, agonal resp, BP ↓ HR↑, skin cool/dry/pale & cyanotic, equal breath sounds, chest contusion, NO active bleeding, Pupils mid point equal/sluggish, ~~sl~~ extremity movement

CONTROLLED DRUGS (SIGNATURE) ORDERED BY | ☐ REMAINDER OF DRUG IN CONTAINER DESTROYED IN PHYSICIAN PRESENCE | SIGNATURE [redacted]

ER CONTRACT ☐ NONE ☐ PHONE ☐ RADIO CNNL. ☐ TELEMENTRY ☐ OTHER | DESTINATION [redacted] | DRIVER [redacted] | PARMEDIC EMT [redacted] | PARAMEDIC EMT [redacted]

Despite the fact that I have been advised by the Emergency Medical Representative of D. C./M. E.M.S. to accept said County's and

U.S Department of Transportation
National Highway Traffic Safety Administration

UPDATE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	10
2. Case Number - Stratum	9103
3. Vehicle Number	01
4. Occupant Number	02

Driver or Occupant Name: _____

Address: _____

_____

Other Information: _____

_____

(Sanitize this section prior to Update submission.)

STATUS OF LOG INJURY INFORMATION

Injury Information ____

(00) Not medically treated/record not required
(01) No record of treatment at medical facility
(02) Medical release required - not obtained
(03) Injury not related to accident
(04) Noncooperative hospital
(05) Hospital out-of-study area
(06) Private physician would not release data
(07) Unknown if medically treated
(08) To be updated
(09) Record not received before file closeout
(10) Record not obtained
(11) Record obtained
(12) Partial record obtained - not to be updated
(13) Partial record obtained - to be updated

UPDATED CASE INFORMATION

	INITIAL SUBMISSION	UPDATED INFORMATION
GV12. Alcohol Test Result Result for Driver		
GV39. Other Drug Specimen Test Type for Driver		
GV40.-GV41. Narcotic Drug		
GV42.-GV43. Depressant Drug		
GV44.-GV45. Stimulant Drug		
GV46.-GV47. Hallucinogen Drug		
GV48.-GV49. Cannabinoid Drug		
GV50.-GV51. Phencyclidine (PCP)		
GV52.-GV53. Inhalant Drug		
GV54.-GV55. Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)		
OA05. Occupant's Age	81	
OA06. Occupant's Sex	2	
OA07. Occupant's Height	62	
OA08. Occupant's Weight	160	
OA17. Manual (Active) Belt System Availability	4	

	INITIAL SUBMISSION	UPDATED INFORMATION
OA18. Manual (Active) Belt System Use	04	
OA21. Air Bag System Availability/Function	1	
OA22. Air Bag System Deployment	1	
OA35. Treatment - Mortality	1	
OA36. Type of Medical Facility (for Initial Treatment)	1	
OA37. Hospital Stay	01	
OA38. Working Days Lost	62	
OA39. Time to Death	04	
OA40. 1st Medically Reported Cause of Death	99	01
OA41. 2nd Medically Reported Cause of Death	00	12
OA42. 3rd Medically Reported Cause of Death	00	07
OA43. Number of Recorded Injuries for This Occupant	16	29
OA44. Automatic (Passive) Belt System Availability/Function	0	
OA45. Automatic (Passive) Belt System Use	0	

INJURY DATA CODED ON INITIAL SUBMISSION

	Source of Injury Data	O.I.C.-A.I.S Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. H	7. A	8. L	9. B	10. 4	11. 11	12. 3	13. 1	14. 03
2nd	15. 1	16. H	17. A	18. U	19. B	20. 4	21. 11	22. 3	23. 1	24. 03
3rd	25. 1	26. C	27. L	28. C	29. P	30. 3	31. 11	32. 2	33. 1	34. 03
4th	35. 1	36. C	37. R	38. C	39. P	40. 3	41. 11	42. 2	43. 1	44. 03
5th	45. 1	46. C	47. L	48. L	49. P	50. 3	51. 11	52. 2	53. 1	54. 03
6th	55. 1	56. C	57. R	58. L	59. P	60. 3	61. 11	62. 2	63. 1	64. 03
7th	65. 1	66. M	67. S	68. L	69. D	70. 2	71. 11	72. 2	73. 1	74. 03
8th	75. 1	76. M	77. L	78. U	79. Q	80. 2	81. 11	82. 2	83. 1	84. 03
9th	85. 1	86. C	87. U	88. F	89. S	90. 3	91. 11	92. 2	93. 1	94. 03
10th	95. 1	96. R	97. L	98. F	99. S	100. 2	101. 11	102. 1	103. 2	104. 03
11th	105. 1	106. R	107. R	108. F	109. S	110. 2	111. 11	112. 1	113. 2	114. 03
12th	115. 1	116. L	117. L	118. F	119. S	120. 2	121. 56	122. 2	123. 2	124. 02
13th	125. 1	126. L	127. R	128. F	129. S	130. 2	131. 56	132. 2	133. 2	134. 02
14th	135. 1	136. L	137. L	138. F	139. S	140. 2	141. 56	142. 2	143. 2	144. 02
15th	145. 1	146. L	147. R	148. F	149. S	150. 2	151. 56	152. 2	153. 2	154. 02
16th	155. 6	156. C	157. U	158. C	159. I	160. 1	161. 41	162. 2	163. 1	164. 00
17th	165.	166.	167.	168.	169.	170.	171.	172.	173.	174.
18th	175.	176.	177.	178.	179.	180.	181.	182.	183.	184.
19th	185.	186.	187.	188.	189.	190.	191.	192.	193.	194.
20th	195.	196.	197.	198.	199.	200.	201.	202.	203.	204.

NOTE: Keep a photocopy of the following original submitted pages when applicable: Exterior Vehicle Form pages 2, 3, 4; Interior Vehicle Form pages 1-reverse, 2, 4, 5; Occupant Injury Form pages 2, 3, 3-reverse; Interview Form pages 3, 4, 5.

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the unofficial and official prior to initial case submission **and from subsequently** acquired medical data. Remember not to double count an injury just because it was identified from two different sources.

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. H	7. A	8. L	9. B	10. 4	11. 10	12. 2	13. 1	14. 06
2nd	15. 1	16. H	17. A	18. U	19. B	20. 4	21. 10	22. 2	23. 1	24. 06
3rd	25. 1	26. H	27. A	28. C	29. B	30. 3	31. 10	32. 2	33. 1	34. 06
4th	35. 1	36. H	37. R	28. U	39. B	40. 4	41. 10	42. 2	43. 1	44. 06
5th	45. 1	46. C	47. L	48. C	49. P	50. 3	51. 41	52. 2	53. 1	54. 00
6th	55. 1	56. C	57. R	58. C	59. P	60. 3	61. 41	62. 2	63. 1	64. 00
7th	65. 1	66. C	67. L	68. L	69. P	70. 3	71. 41	72. 2	73. 1	74. 00
8th	75. 1	76. C	77. R	78. L	79. P	80. 3	81. 41	82. 2	83. 1	84. 00
9th	85. 1	86. M	87. L	88. U	89. Q	90. 2	91. 41	92. 2	93. 2	94. 00
10th	95. 1	96. M	97. S	98. L	99. D	100. 2	101. 41	102. 2	103. 2	104. 00

If greater than 10 injuries, code additional on Occupant Injury Data Supplement.

OCCUPANT INJURY DATA

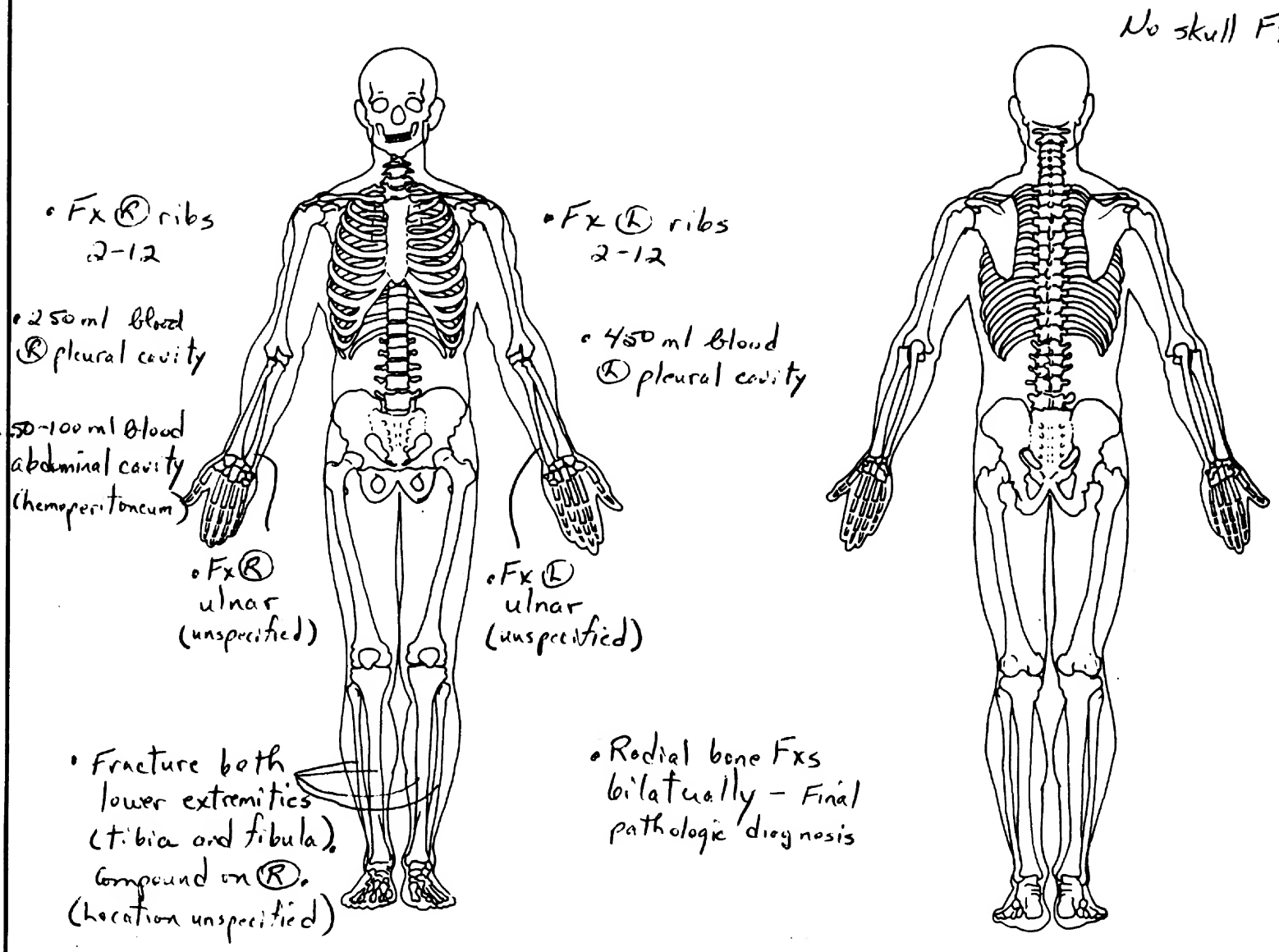
	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
11th	1	M	R	C	L	2	41	2	2	00
12th	1	C	B	F	S	4	41	2	1	00
13th	1	R	L	F	S	2	11	1	2	03
14th	1	R	R	F	S	2	11	1	2	03
15th	1	L	R	F	S	3	56	2	2	02
16th	1	L	R	F	S	3	56	2	2	02
17th	1	L	L	F	S	2	56	2	2	02
18th	1	L	L	F	S	2	56	2	2	02
19th	1	C	U	C	I	1	41	2	1	00
20th	1	N	R	C	I	1	41	1	1	00
21st	1	H	L	C	I	1	10	2	1	06
22nd	1	F	L	C	O	1	10	2	1	06
23rd	1	M	U	C	I	1	41	3	1	00

OCCUPANT INJURY DATA SUPPLEMENT

Injury Number	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
24	1	X	R	C	I	1	11	1	1	03
25	1	X	L	C	I	1	10	1	1	06
26	1	Y	R	C	I	1	11	1	1	03
27	1	Y	R	A	I	1	11	1	1	03
28	1	Y	L	C	I	1	10	1	1	06
29	1	Y	L	A	I	1	10	1	1	06
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

OFFICIAL INJURY DATA—SKELETAL INJURIES

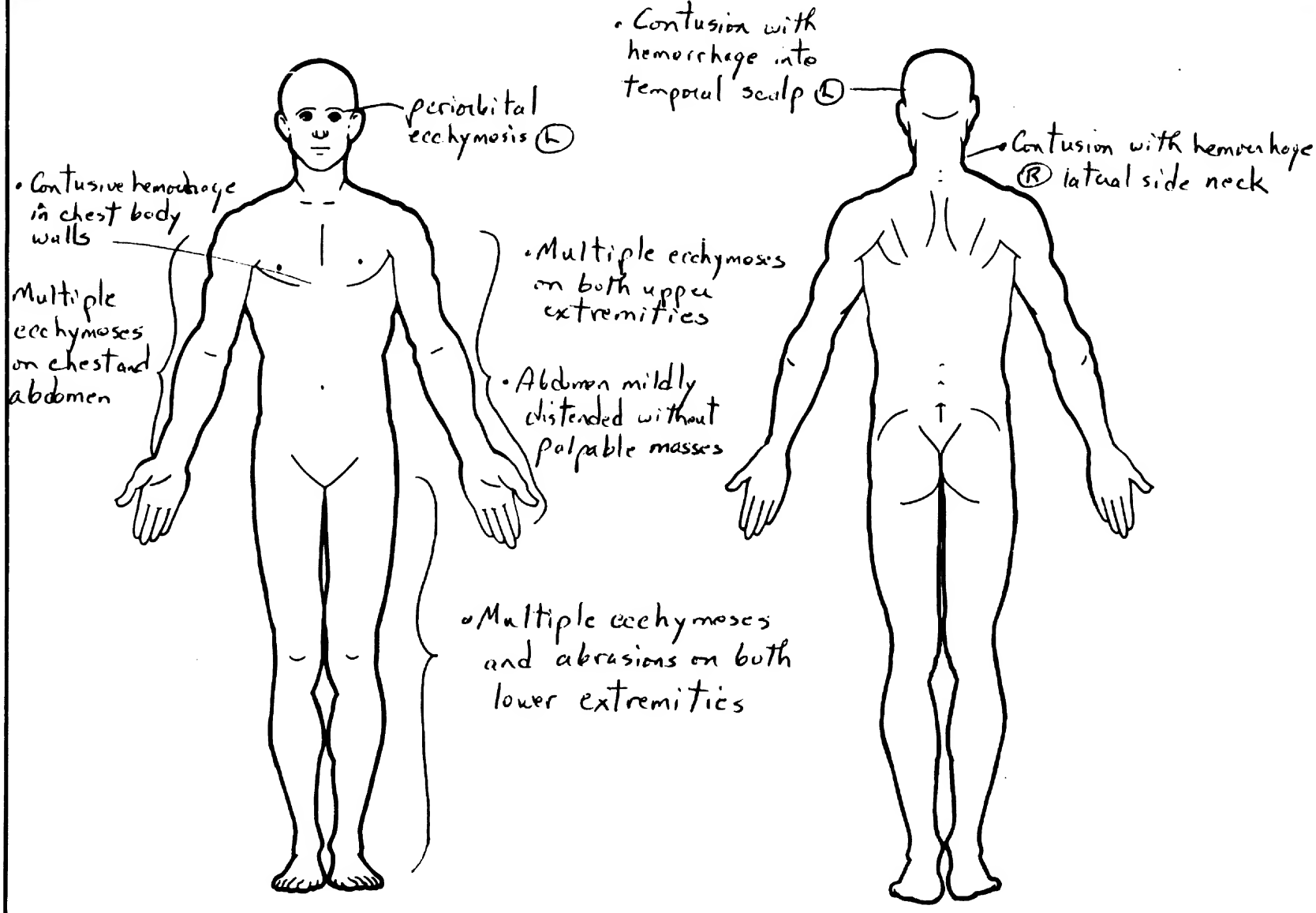
Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA—SOFT TISSUE INJURIES

AUTOPSY

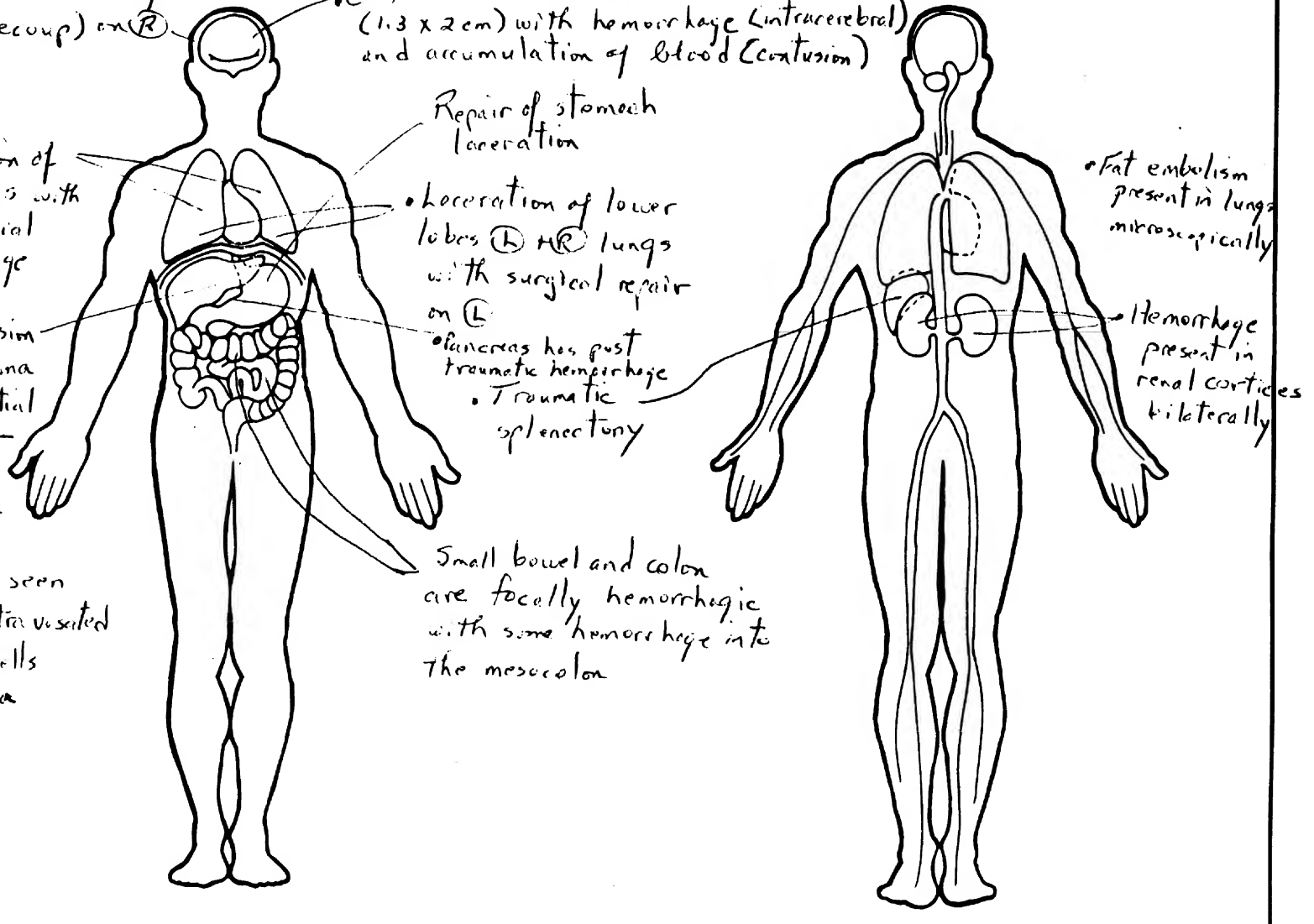
Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



Cause of Death: MVA laceration of brain with intracerebral hemorrhage (L) frontal lobe; multiple rib Fxs, hemothorax, bilateral; lungs—contusions with laceration + hemorrhage bilateral

OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



[redacted] HOSPITAL
Department of Pathology [redacted] Indiana Final Autopsy Report

Name: [redacted] Hospital: [redacted] Autopsy: # [redacted]
Sex: Female Age: 81 Date: [redacted]

Date of Death: [redacted] Hour: 8:48 p.m.
Date of Autopsy: [redacted] Hour: 10:00 a.m.

Performed by: [redacted] M.D.

Copies to: [redacted] County Coroner

TITLE OF CASE: MULTIPLE TRAUMATIC INJURIES

CLINICAL HISTORY:

On [redacted] 1991, the patient was involved in a car accident. The patient was transported to [redacted] Hospital where she underwent splenectomy and repair of a stomach laceration. The patient expired a few hours later.

GROSS PROTOCOL:

External Examination:

The autopsy is performed on the unembalmed body of a white female identified as [redacted]. The autopsy permit is signed by the [redacted] County Coroner, Mr. [redacted] and is unrestricted. The body is that of a well developed, well nourished, white female appearing the stated age of 81 years. Rigor mortis is no longer present and postmortem lividity is purplish red and fixed on the posterior surface of the body. Height and weight are 62 inches and 160 pounds, respectively. There is no jaundice in the skin or sclerae. Putrefaction is absent. The following artifacts of postmortem and/or medical care are present: NC and tracheostomy tubes, IV line in the right upper extremity, IV line in the right femoral vein. There is contusion with hemorrhage into the temporal region of the scalp on the left side; however, the bones are not fractured. The irides are brown. The pupils are round and equal in diameter. The nose is normal. There is scant blood in the nares and mouth. The upper teeth are absent. There is no denture. Oral hygiene is good. The cranio-cervical junction displays normal range of motion. The cervical lymph nodes are slightly enlarged. There is no increase in the A-P diameter of the chest. The breasts are symmetrical without palpable masses and the nipples appear normal without discharge. The back is unremarkable. The abdomen is mildly distended without palpable masses. The external genitalia are those of a normal, well developed female. There is no clubbing, edema or cyanosis of the extremities. The following skin lesions are present: There is periorbital ecchymosis on the left side and multiple ecchymoses on both upper extremities, the chest, abdomen, and lower extremities. There are multiple abrasions on the lower extremities. There is an incision site on the left side of the chest which measures 3 cm. in length. There is a surgical scar with surgical sutures in the midline of the abdomen which measures 30 cm. in length. Both ulnar bones are fractured. There is fracture of both lower extremities (tibia and fibula). A compound fracture is present on the right side. There are two old surgical scars on the abdomen on the right side. One is in the upper quadrant and

measures 9 cm. in length. The second one is parallel to the midline and is 6 cm. in length. The lower extremities have severe varicose veins covered with "makeup". There is also a recent IV cutdown site in the left inguinal region.

Internal Examination:

Serous Cavities: The body cavities are opened with a standard "Y"-shaped incision. The cranial cavity is opened with a coronal incision of the scalp and removal of the calvarium. There is no pneumothorax. There is approximately 250 ml. of blood in the right and 450 ml. of blood in the left pleural cavity. There is no evidence of peritonitis. There are no pleural adhesions. There is no ascitic fluid. However, there are approximately 50-100 ml. of blood in the abdominal cavity. After removal of the organs from the body, inspection of the serous cavities reveals no fractures of the sternum, clavicles, vertebral column or pelvic bones. Eleven ribs (2-12) on each side are fractured. Contusion hemorrhage is present in the body walls.

Larynx and Neck: The larynx and trachea are in the midline. No significant hemorrhage is present in the skin, fat, or muscles of the anterior neck. However, there is contusion with hemorrhage on the right lateral side of the neck. The thyroid gland is not enlarged and reddish-brown on cut section. The laryngeal cartilages and hyoid bone are not fractured. There is no obstruction of the upper respiratory tract. There is scant mucus in the larynx. The mucosa of the hypopharynx, larynx and trachea appears normal without edema, ulceration, or tumor. Cervical lymph nodes are not enlarged. No fractures of the cervical vertebrae are detected.

Heart: The heart weighs 290 gm. The heart is in the normal position with respect to the great vessels and chest cavity. On opening the aorta and pulmonary trunk, there is no evidence of air embolism and there is no evidence of pulmonary thromboembolism. The left ventricle is not hypertrophied. Pericarditis is not present. There is less than 25% stenosis of the left main, left anterior descending, circumflex, and right coronary arteries secondary to atherosclerosis. There are no thrombi present in the arteries. The valve leaflets and commissures are normal. The valve circumferences appear normal for age. There are no defects in the atrial or ventricular septa. There is no evidence of recent or remote myocardial infarction. The ductus arteriosus is not patent. Autolysis is not significant.

Vascular System: The aorta and its main branches show mild atherosclerosis. There is no evidence of aneurysm, coarctation, dissection or laceration of the aorta. The renal arteries are not stenotic.

Lungs: The right lung weighs 350 gm., the left lung 340 gm. The trachea is normal from the larynx to carina. There is no aspirated gastric material and no aspirated blood in the trachea. The distal bronchi contain scant mucus and blood. No arterial thromboemboli are identified. The pleural surfaces are focally hemorrhagic. The lungs and hilar nodes are not significantly anthracotic, and there is mild bullous emphysema. Bronchopneumonia is absent. There is no focal consolidation and no tumor. There is contusion of both lungs with interstitial hemorrhage. There is also laceration of the lower lobes bilaterally with surgical repair on the left side.

Hepatobiliary System: The liver weighs 1050 gm. The capsular surface is smooth. On cut section, the parenchyma is reddish brown and there is focal contusion with interstitial hemorrhage. Also a subcapsular cyst which measures 5 cm. in greatest dimension is identified. Metastatic tumor is not present. The hepatic duct is patent. The gallbladder is absent. Autolysis of the liver is not significant.

Spleen: Status post traumatic splenectomy, recent.

Pancreas: The pancreas is appropriate in shape and size with respect to total body fat stores. On the cut surface it is lobular with interspersed fat without focal calcification, fibrosis, or fat necrosis. Post-traumatic hemorrhage into the pancreas is identified. Autolysis is not significant, grossly.

Adrenal glands: Two adrenals are present and are of normal size and shape. There is a cortical nodule which measures 1.2 cm. in greatest dimension identified in the left adrenal. The right adrenal grossly appears to be normal. Autolysis of the adrenals is not significant.

Urinary tract: The right kidney weighs 130 gm., the left one 130 gm. Two kidneys, two ureters, and a bladder are present in their usual positions without dilatation. The kidneys are symmetrical in shape and size. The capsules strip from the cortices with ease and the surfaces are smooth. On cut section, the medullae appear to be normal. However, there is hemorrhage into the cortices bilaterally. There are no stones or tumors in the kidneys, pelves, or ureters. Autolysis of the kidneys is not significant.

Gastrointestional tract: The esophagus is lined by glistening white mucosa. The stomach contains rugated mucosa. The stomach contains approximately 150 ml. of slightly bloody fluid. There is repair of the stomach laceration seen with a recent sutured surgical incision measuring 9 cm. in length. There is submucosal hemorrhage present. The small bowel is focally hemorrhagic. Feces are present in the colon. The colon appears to be focally hemorrhagic with some hemorrhage into the mesocolon. The vermiform appendix is absent.

Central Nervous System: There is hemorrhage in the scalp in the left temporal region. There is also hemorrhage into the epidural space (contrecoup) on the right side. The cerebral and cerebellar hemispheres are symmetrical. However, there is laceration with hemorrhage of the left frontal cortex which measures 1.3 x 2 cm. with accumulation of blood. There is no flattening of the gyri and no widening of the sulci. The major vessels at the base of the brain have normal anatomic distribution and there is mild atherosclerosis. The cranial nerves are symmetrical and intact. There is no evidence of herniation at any of the portals of the brain. On serial coronal sectioning of the brain, there is evidence of contusion with laceration and hemorrhage of the left frontal lobe (white matter).

Skull: There are no skull fractures. The craniocervical junction demonstrates normal range of motion.

MICROSCOPIC:

Cardiovascular: Sections of heart show myocardial fibers which show no abnormalities. The nuclei are long, slender, and do not appear to be enlarged. There is no interstitial fibrosis present. There is no recent or remote myocardial infarction. The lumens of the coronary arteries are not occluded by thrombosis. Atherosclerosis is mild.

Lungs: Sections of both lungs show hemorrhage into the alveolar spaces as well as the lung parenchyma. Focally, inflammatory cells mostly composed of lymphocytes, are present. Some of the arterioles and alveolar septal capillaries appear distended and empty. This is consistent with fat embolism.

Liver: The capsule is smooth. The usual lobular architecture is retained. There is severe subcapsular hemorrhage seen. There are also extravasated red blood cells within the liver parenchyma. The sinusoids and the central vein system are unremarkable. Portal triads show minimal inflammation. There is no significant fibrosis seen. Bile canaliculi are not dilated. Individual hepatocytes are unremarkable.

Pancreas: Early autolysis of the pancreas is present. There is severe congestion with hemorrhage present.

Urinary Bladder: The mucosa is composed of unremarkable transitional epithelium. Brunn's nests are seen in the lamina propria. Within the muscularis foci of extravasated red blood cells are identified; otherwise the cells appear to be unremarkable.

Adrenals: Slides of adrenals show the usual tri-layered cortex and unremarkable medulla. Within the left adrenal a well encapsulated adenoma composed of cortical cells with foci of extravasated red blood cells is seen.

Gastrointestinal: Sections of stomach show extravasated red blood cells within all layers of the wall.

Kidneys: Several sclerotic glomeruli are identified. Subcapsular foci of inflammatory cells, mostly composed of lymphocytes, are also present. Within the tubules foci of calcification are seen. Also foci of extravasated red blood cells are seen. Otherwise, glomeruli and the arterial system appear to be unremarkable.

Central Nervous System: Several sections of brain show normal brain architecture. There is no inflammation or tumor identified.

FINAL PATHOLOGIC DIAGNOSIS:

EXTERNAL:

Abrasions with lacerations, multiple, upper and lower extremities, abdomen
Radial bone fractures, bilateral
Tibial and fibula fractures, bilateral
Surgical scar, recent, midline, abdomen (30 cm.)
Surgical incision, recent, chest, left side (3 cm.)
Surgical scars, remote, abdomen, right side
Varicose veins, lower extremities

SEROUS CAVITIES:
Hemothorax, right pleural cavity, estimated 250 ml. blood
Hemothorax, left pleural cavity, estimated 450 ml. blood
Hemoperitoneum, minimal
Rib fractures, multiple, bilateral

CARDIOVASCULAR:
Atherosclerosis, coronary, minimal

RESPIRATORY:
Pulmonary contusions with lacerations and hemorrhage, bilateral

LIVER:
Contusion with superficial hemorrhage, mild

PANCREAS:
Hemorrhage, post-traumatic

URINARY BLADDER:
Hemorrhage, mild

ADRENALS:
Adrenal adenoma, left side
Laceration repair

KIDNEYS:
Nephrosclerosis, mild
Atherosclerosis, mild, bilateral

CENTRAL NERVOUS SYSTEM:
Laceration of the brain with intracerebral hemorrhage (white matter), left frontal lobe

FINAL SUMMARY:

The autopsy was performed on the unembalmed body of a Caucasian female identified as [redacted] Permission for the autopsy was granted by the [redacted] County Coroner, Mr. [redacted] and was unrestricted.

The pathologic findings related to the immediate cause of death were multiple traumatic injuries due to motor vehicle accident, namely: laceration of the brain with intracerebral hemorrhage (white matter), left frontal lobe; multiple rib fractures; hemothorax, bilateral; lungs, contusions with laceration and hemorrhage, bilateral; status post traumatic splenectomy, recent; status post repair of stomach laceration, recent; radial fracture, bilateral; bilateral fractures of the tibia and fibula.

In summary, the immediate cause of death was multiple traumatic injuries due to motor vehicle accident.

Death Certificate signed as follows:

Immediate Cause of Death: Multiple traumatic injuries

Due To: Motor vehicle accident

Due To:

Other Conditions:

[redacted]

[redacted] M/D

Resident

[redacted] M.D.

Pathologist

Appendix I:

NASS Occupant Forms: Vehicle #2 Driver

U.S. Department of Transportation
National Highway Traffic Safety Administration

O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 02
4. Occupant Number: 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 39
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 2
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height: 66
Code actual height to the nearest inch.
(99) Unknown

8. Occupant's Weight: 190
Code actual weight to the nearest pound.
(999) Unknown

9. Occupant's Role: 1
(1) Driver
(2) Passenger
(9) Unknown

10. Occupant's Seat Position: 11
Front Seat
(11) Left side
(12) Middle
(13) Right Side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right Side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right Side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right Side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 9
(0) Normal posture
(1) Abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection: 0
(0) No ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown

13. Ejection Area: 0
(0) No ejection
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.) (specify): _____
(9) Unknown

14. Ejection Medium: 0
(0) No ejection
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify): _____
(5) Integral structure
(8) Other medium (specify): _____
(9) Unknown

15. Medium Status (Immediately Prior to Impact): 0
(0) No ejection
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

16. Entrapment: 0
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
(0) Not entrapped
(1) Entrapped
(9) Unknown

RESTRAINT SYSTEM AND SEAT EVALUATION

17. Manual (Active) Belt System Availability **4**
(0) Not available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown
(8) Other belt (specify): _____
(9) Unknown

18. Manual (Active) Belt System Use **0 4**
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify): _____
(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify): _____
(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts **1**
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

Belt Used Improperly
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of manual belt system (specify): _____
(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident **1**
(0) No manual belt used or not available
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other manual belt failure (specify): _____
(9) Unknown

21. Air Bag System Availability/Function **C**
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment **0**
(0) Not equipped/not available
(1) Air bag deployed during accident
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(9) Unknown

23. Did Air Bag System Fail? **0**
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use **4**
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify): _____
(8) Restrained, type unknown
(9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position **3**
(0) No head restraints
(1) Integral—no damage
(2) Integral—damaged during accident
(3) Adjustable—no damage
(4) Adjustable—damaged during accident
(5) Add-on—no damage
(6) Add-on—damaged during accident
(8) Other specify): _____
(9) Unknown

26. Seat Type (This Occupant Position) 05
(00) Occupant not seated or no seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., van type)
(09) Other seat type (specify):

_____

(99) Unknown

27. Seat Performance (This Occupant Position) 1
(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks failed
(4) Seat track/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify):

_____

_____

_____

(7) Combination of above (specify):

_____

(8) Other (specify):

_____

(9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 000
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
(997) Other make/model (specify):

_____

(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):

_____

(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):

_____

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):

_____

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):

_____

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 00

32. Child Safety Seat Shield Usage 00

33. Child Safety Seat Tether Usage 00

Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed with Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 4
(0) O—No injury
(1) C—Possible injury
(2) B—Nonincapacitating injury
(3) A—Incapacitating injury
(4) K—Killed
(5) U—Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment—Mortality 1
(0) No treatment
(1) Fatal
(2) Fatal—ruled disease

Nonfatal
(3) Hospitalized
(4) Transported and released
(5) Treatment at scene—nontransported
(6) Treatment later
(8) Treatment—other (specify):

(9) Unknown

36. Type of Medical Facility (for Initial Treatment) 0
(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):

(9) Unknown

37. Hospital stay 00
00 Code number of days (up through 60) that the occupant stayed in the hospital
(00) Not hospitalized
(61) 61 days or more
(99) Unknown

38. Working Days Lost 62
62 Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

39. Time to Death 01
___ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
(00) Not fatal
(96) Fatal—ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 99

41. 2nd Medically Reported Cause of Death 00

42. 3rd Medically Reported Cause of Death 00
___ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(97) Other result (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant 08
___ Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

44. Automatic (Passive) Belt System Availability/ Function [0]
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts-type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use [0]
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):

(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type [0]
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive) Belt System [0]
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident [0]
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):

(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):

(9) Unknown

UPDATE CANDIDATE? NO [ ] YES [✓]

OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES [✓]

*** STOP HERE ***
IF THERE ARE NO RECORDED INJURIES
(I.E., OA43 = 00,97,99)

U.S. Department of Transportation

National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 02
4. Occupant Number: 01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. C	7. C	8. L	9. A	10. 5	11. 06	12. 1	13. 1	14. 97
2nd	15. 1	16. C	17. R	18. C	19. P	20. 3	21. 06	22. 1	23. 1	24. 97
3rd	25. 1	26. M	27. R	28. L	29. L	30. 2	31. 04	32. 1	33. 1	34. 97
4th	35. 1	36. M	37. I	28. L	39. G	40. 2	41. 04	42. 1	43. 1	44. 97
5th	45. 1	46. C	47. L	48. F	49. 5	50. 3	51. 06	52. 1	53. 1	54. 97
6th	55. 1	56. S	57. L	58. F	59. 5	60. 2	61. 41	62. 1	63. 1	64. 00
7th	65. 1	66. T	67. R	68. F	69. 5	70. 3	71. 10	72. 1	73. 2	74. 03
8th	75. 1	76. P	77. U	78. F	79. 5	80. 3	81. 97	82. 9	83. 7	84. 99
9th	85.	86.	87.	88.	89.	90.	91.	92.	93.	94.
10th	95.	96.	97.	98.	99.	100.	101.	102.	103.	104.

HS Form 433B (1/91)

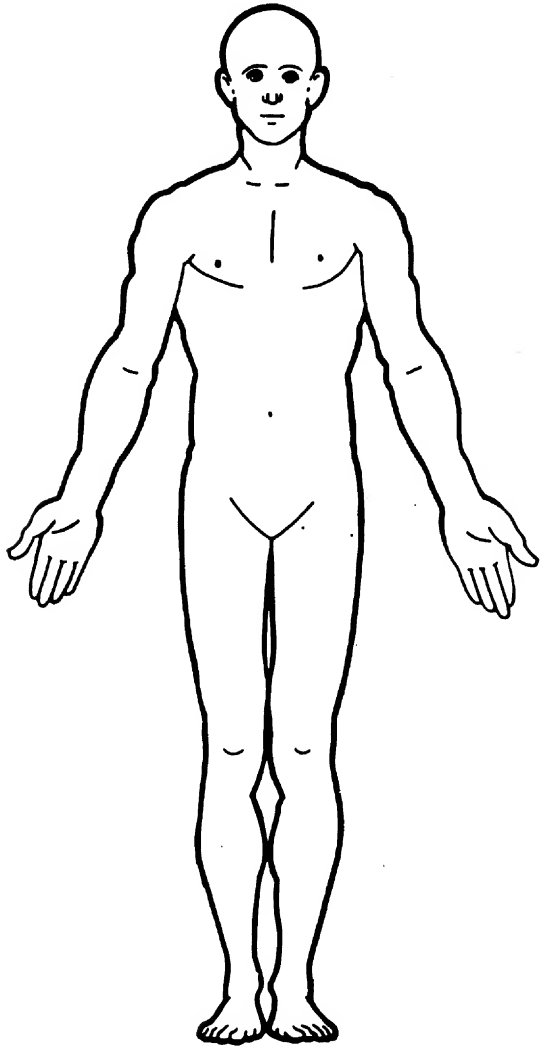
This report is authorized by P.L. 89-563, Title 1, Section 106, 108, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely.

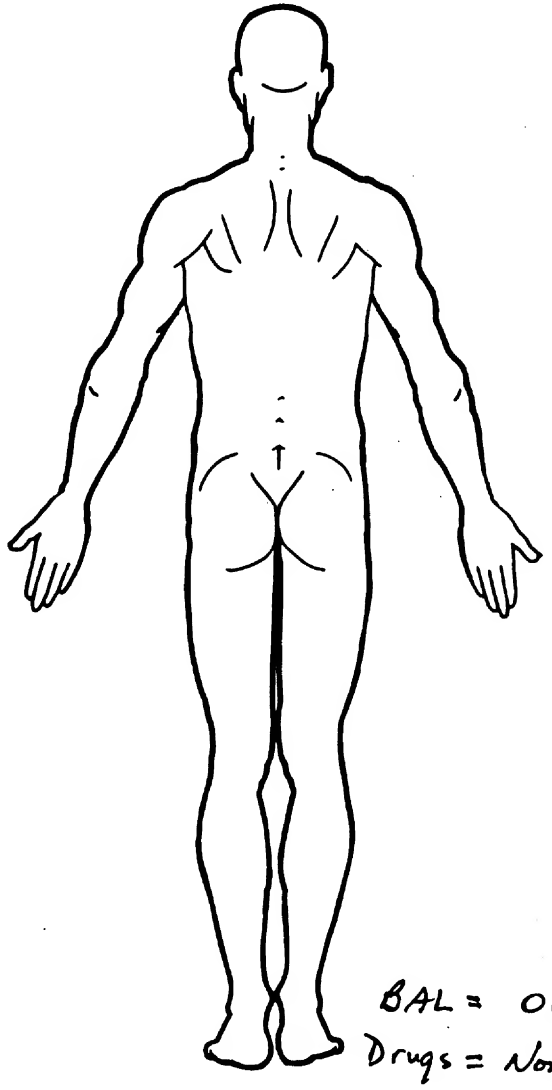
OFFICIAL INJURY DATA – SOFT TISSUE INJURIES

Wearing seatbelt, pinned in automobile — Time to Death – 12 minutes

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Preliminary Autopsy Report — Dead at scene



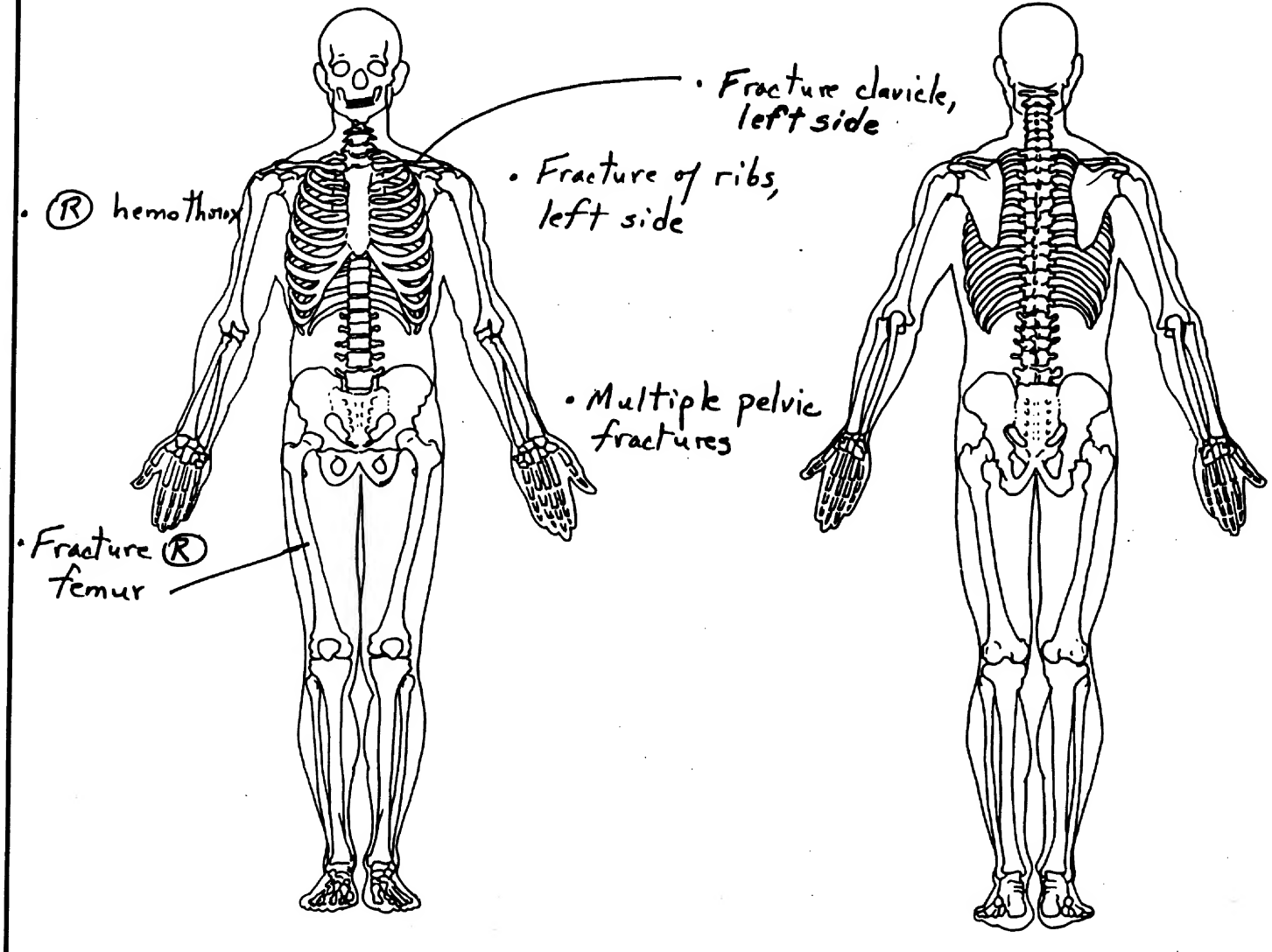


BAL = 00 mg/dl
Drugs = None Detected

Cause of Death: Multiple traumatic injuries due to motor vehicle accident

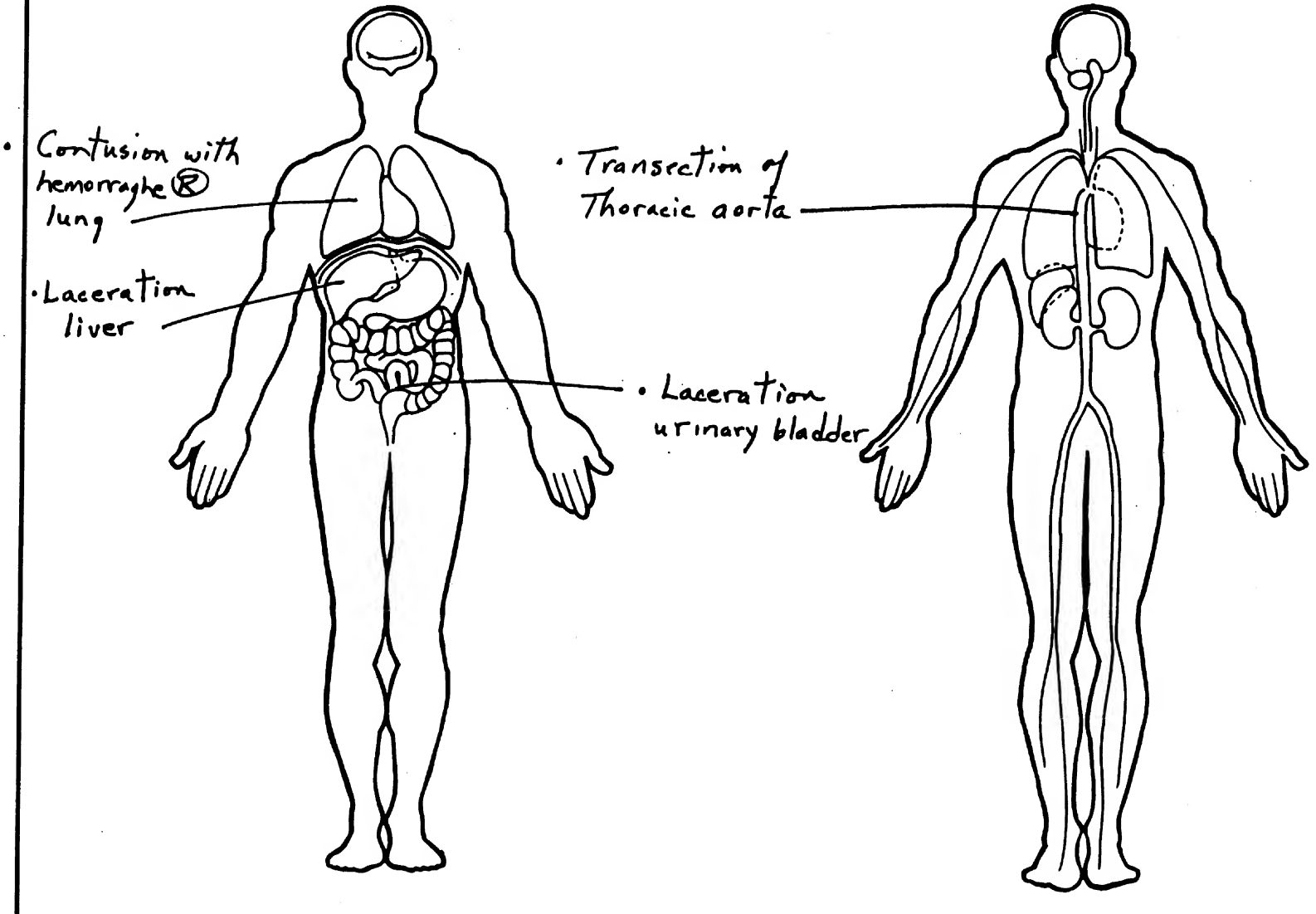
OFFICIAL INJURY DATA – SKELETAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



[redacted] MEDICAL LABORATORIES
at
[redacted] HOSPITAL
[redacted]

Department of Pathology — Preliminary Autopsy Report

Name: [redacted] Hospital: [redacted] Autopsy: [redacted]
Sex: Female Age: 39 Date: [redacted]

Date of Death: [redacted] Hour: 4:40 p.m.
Date of Autopsy: [redacted] Hour: [redacted]

Performed by: [redacted] M.D.

Copies to: [redacted] County Coroner

Death Certificate signed as follows:

Immediate Cause of Death: Multiple traumatic injuries

Due To: Motor vehicle accident

Due To:

Other Conditions:

The following is a summary of the pertinent gross findings. A complete report will be sent to you at the completion of our studies.

SUMMARY:

The autopsy is performed on the unembalmed body of a Caucasian female identified as [redacted] Permission for the autopsy is granted by the [redacted] County Coroner, Mr. [redacted] and is unrestricted.

The pathologic findings related to the immediate cause of death are multiple traumatic injuries due to motor vehicle accident. These include transection of the thoracic aorta; right hemothorax; fracture of ribs and clavicle, left side; laceration of liver; multiple pelvic fractures; fracture, right femur; laceration of the urinary bladder; contusion with hemorrhage, right lung.

In summary, the immediate cause of death is multiple traumatic injuries.

[redacted]

[redacted] M.D.
Resident

[redacted] M.D.
Pathologist

SPECIAL CHEMISTRY

TEST	UNITS	RANGE

THERAPEUTIC DRUGS & TOXICOLOGY

DRUG SCREEN [redacted]

Blood/Serum Drug Screen

Phenobarbital: None detected
Barbiturates excluding Phenobarbital: None detected
Caffeine: None detected
Nicotine: None detected
Acetaminophen: None detected
Ethinamate: None detected
Strychnine: None detected
Phenothiazine Metabolite: None detected
Amitriptyline: None detected
Methadone: None detected
Nortriptyline: None detected
Methaqualone: None detected
Imipramine: None detected
Quinine: None detected
Doxepin: None detected
Morphine: None detected
Amphetamines: None detected
Cocaine: None detected
Methamphetamine: None detected
Codeine: None detected
Pseudoephedrine: None detected
PCP: None detected
Phenytoin: None detected
Propoxyphene: None detected
Glutethimide: None detected
Meperidine: None detected
Benzodiazepines: None detected
Meprobamate: None detected
BLOOD ALCOHOL = 0 MG/DL OR 0.000%

U.S. Department of Transportation
National Highway Traffic Safety Administration

UPDATE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	10
2. Case Number - Stratum	9103
3. Vehicle Number	02
4. Occupant Number	01

Driver or Occupant Name: _____

Address: _____

_____

Other Information: _____

_____

(Sanitize this section prior to Update submission.)

STATUS OF LOG INJURY INFORMATION

Injury Information 11

(00) Not medically treated/record not required
(01) No record of treatment at medical facility
(02) Medical release required - not obtained
(03) Injury not related to accident
(04) Noncooperative hospital
(05) Hospital out-of-study area
(06) Private physician would not release data
(07) Unknown if medically treated
(08) To be updated
(09) Record not received before file closeout
(10) Record not obtained
(11) Record obtained
(12) Partial record obtained - not to be updated
(13) Partial record obtained - to be updated

UPDATED CASE INFORMATION

	INITIAL SUBMISSION	UPDATED INFORMATION
GV12. Alcohol Test Result Result for Driver	00	
GV39. Other Drug Specimen Test Type for Driver	1	
GV40.-GV41. Narcotic Drug	01	
GV42.-GV43. Depressant Drug	01	
GV44.-GV45. Stimulant Drug	01	
GV46.-GV47. Hallucinogen Drug	00	
GV48.-GV49. Cannabinoid Drug	00	
GV50.-GV51. Phencyclidine (PCP)	01	
GV52.-GV53. Inhalant Drug	00	
GV54.-GV55. Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	01	
OA05. Occupant's Age	39	
OA06. Occupant's Sex	2	
OA07. Occupant's Height	66	61
OA08. Occupant's Weight	190	200
OA17. Manual (Active) Belt System Availability	4	

	INITIAL SUBMISSION	UPDATED INFORMATION
OA18. Manual (Active) Belt System Use	04	
OA21. Air Bag System Availability/Function	0	
OA22. Air Bag System Deployment	0	
OA35. Treatment - Mortality	1	
OA36. Type of Medical Facility (for Initial Treatment)	0	
OA37. Hospital Stay	00	
OA38. Working Days Lost	62	
OA39. Time to Death	01	
OA40. 1st Medically Reported Cause of Death	99	01
OA41. 2nd Medically Reported Cause of Death	00	07
OA42. 3rd Medically Reported Cause of Death	00	05
OA43. Number of Recorded Injuries for This Occupant	08	19
OA44. Automatic (Passive) Belt System Availability/Function	0	
OA45. Automatic (Passive) Belt System Use	0	

INJURY DATA CODED ON INITIAL SUBMISSION

	Source of Injury Data	O.I.C.-A.I.S Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. C	7. C	8. L	9. A	10. 5	11. 06	12. 1	13. 1	14. 97
2nd	15. 1	16. C	17. R	18. C	19. P	20. 3	21. 06	22. 1	23. 1	24. 97
3rd	25. 1	26. M	27. R	28. L	29. L	30. 2	31. 04	32. 1	33. 1	34. 97
4th	35. 1	36. M	37. I	38. L	39. G	40. 2	41. 04	42. 1	43. 1	44. 97
5th	45. 1	46. C	47. L	48. F	49. S	50. 3	51. 06	52. 1	53. 1	54. 97
6th	55. 1	56. S	57. L	58. F	59. S	60. 2	61. 41	62. 1	63. 1	64. 00
7th	65. 1	66. T	67. R	68. F	69. S	70. 3	71. 10	72. 1	73. 2	74. 03
8th	75. 1	76. P	77. U	78. F	79. S	80. 3	81. 97	82. 9	83. 7	84. 99
9th	85. ___	86. ___	87. ___	88. ___	89. ___	90. ___	91. ___	92. ___	93. ___	94. ___
10th	95. ___	96. ___	97. ___	98. ___	99. ___	100. ___	101. ___	102. ___	103. ___	104. ___
11th	105. ___	106. ___	107. ___	108. ___	109. ___	110. ___	111. ___	112. ___	113. ___	114. ___
12th	115. ___	116. ___	117. ___	118. ___	119. ___	120. ___	121. ___	122. ___	123. ___	124. ___
13th	125. ___	126. ___	127. ___	128. ___	129. ___	130. ___	131. ___	132. ___	133. ___	134. ___
14th	135. ___	136. ___	137. ___	138. ___	139. ___	140. ___	141. ___	142. ___	143. ___	144. ___
15th	145. ___	146. ___	147. ___	148. ___	149. ___	150. ___	151. ___	152. ___	153. ___	154. ___
16th	155. ___	156. ___	157. ___	158. ___	159. ___	160. ___	161. ___	162. ___	163. ___	164. ___
17th	165. ___	166. ___	167. ___	168. ___	169. ___	170. ___	171. ___	172. ___	173. ___	174. ___
18th	175. ___	176. ___	177. ___	178. ___	179. ___	180. ___	181. ___	182. ___	183. ___	184. ___
19th	185. ___	186. ___	187. ___	188. ___	189. ___	190. ___	191. ___	192. ___	193. ___	194. ___
20th	195. ___	196. ___	197. ___	198. ___	199. ___	200. ___	201. ___	202. ___	203. ___	204. ___

NOTE: Keep a photocopy of the following original submitted pages when applicable: Exterior Vehicle Form pages 2, 3, 4; Interior Vehicle Form pages 1-reverse, 2, 4, 5; Occupant Injury Form pages 2, 3, 3-reverse; Interview Form pages 3, 4, 5.

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the unofficial and official prior to initial case submission **and from subsequently** acquired medical data. Remember not to double count an injury just because it was identified from two different sources.

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. C	7. C	8. L	9. A	10. 5	11. 06	12. 1	13. 1	14. 97
2nd	15. 1	16. C	17. R	18. C	19. P	20. 3	21. 06	22. 1	23. 1	24. 97
3rd	25. 1	26. C	27. R	28. L	29. P	30. 3	31. 06	32. 1	33. 1	34. 97
4th	35. 1	36. C	37. L	28. C	39. P	40. 3	41. 06	42. 1	43. 1	44. 97
5th	45. 1	46. M	47. R	48. L	49. L	50. 2	51. 04	52. 1	53. 1	54. 97
6th	55. 1	56. M	57. I	58. L	59. G	60. 2	61. 04	62. 1	63. 1	64. 97
7th	65. 1	66. C	67. L	68. F	69. S	70. 4	71. 06	72. 1	73. 1	74. 97
8th	75. 1	76. S	77. L	78. F	79. S	80. 2	81. 41	82. 1	83. 1	84. 00
9th	85. 1	86. T	87. R	88. F	89. S	90. 3	91. 10	92. 1	93. 2	94. 03
10th	95. 1	96. P	97. U	98. F	99. S	100. 3	101. 04	102. 3	103. 1	104. 97

If greater than 10 injuries, code additional on Occupant Injury Data Supplement.

OCCUPANT INJURY DATA

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
11th	1	F	C	F	S	2	04	1	1	97
12th	1	F	R	C	I	2	06	1	1	97
13th	1	A	L	L	I	1	07	3	1	97
14th	1	C	W	C	I	1	06	1	1	97
15th	1	Y	R	L	I	2	10	1	1	03
16th	1	C	U	A	I	1	06	1	1	97
17th	1	M	U	A	I	1	06	2	1	97
18th	1	X	U	A	I	1	09	2	1	04
19th	1	Y	U	A	I	1	09	2	1	04
20th	—	—	—	—	—	—	— —	—	—	— —
21st	—	—	—	—	—	—	— —	—	—	— —
22nd	—	—	—	—	—	—	— —	—	—	— —
23rd	—	—	—	—	—	—	— —	—	—	— —

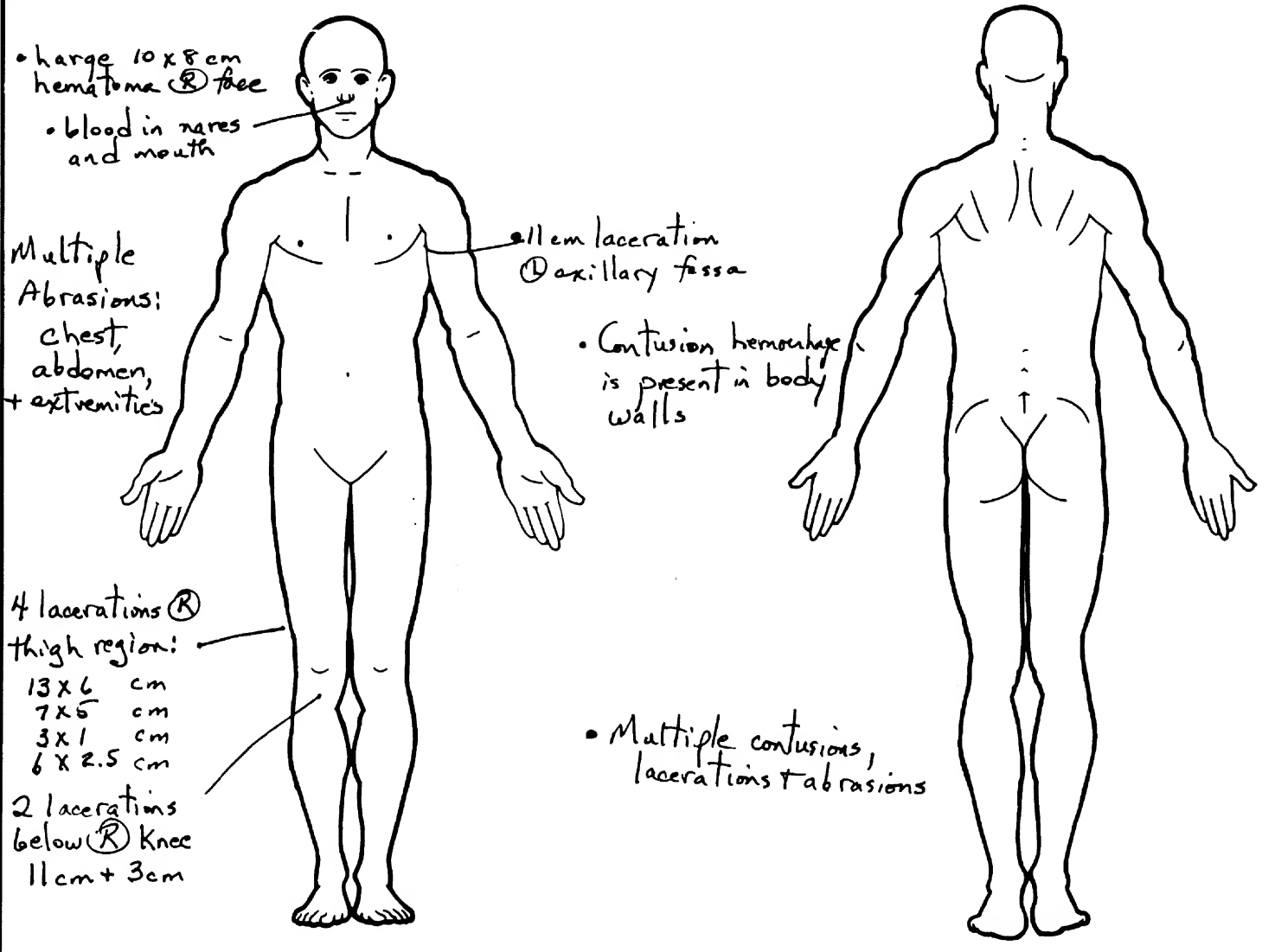
OFFICIAL INJURY DATA—SOFT TISSUE INJURIES

AUTOPSY

Dead at Scene

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

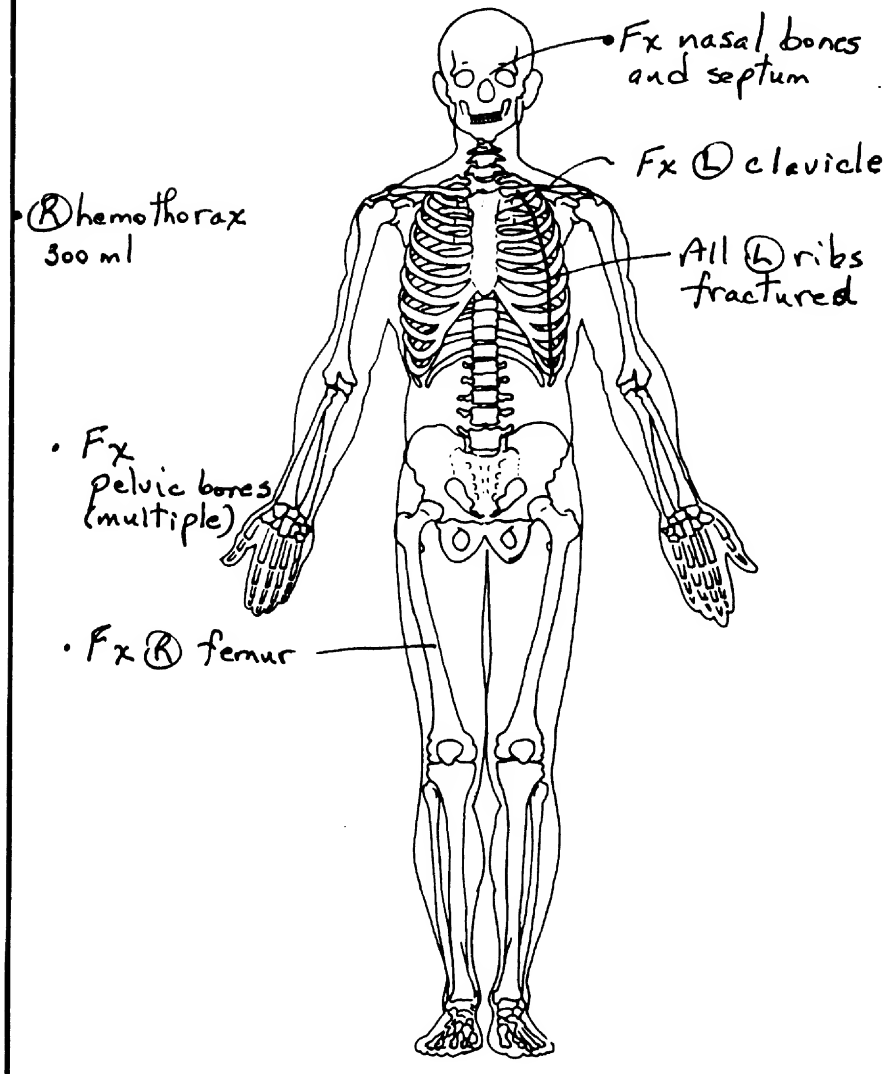
No trauma or deformity of head

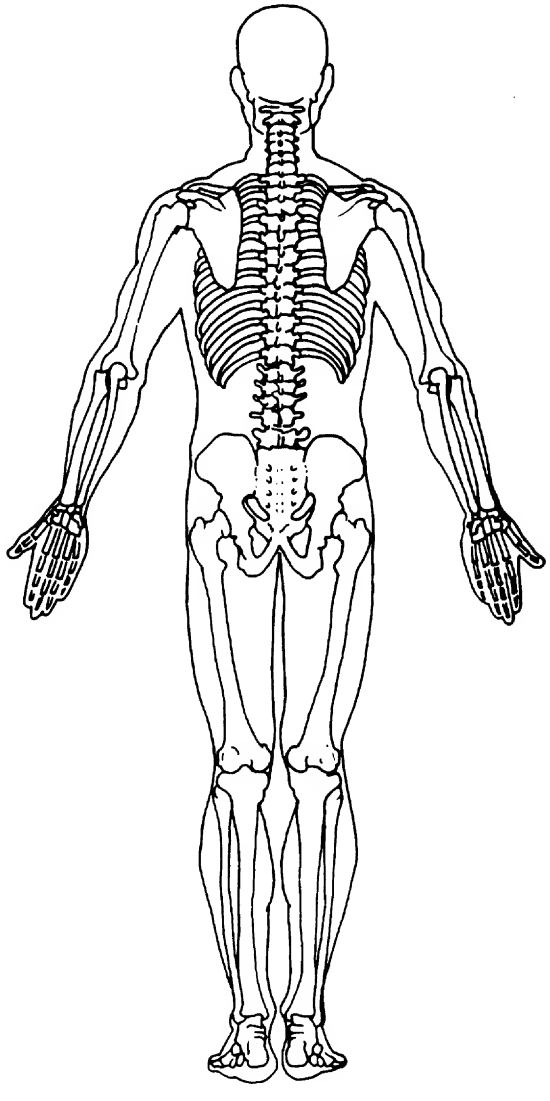


Cause of Death: Multiple traumatic injuries including transection of thoracic aorta, ® hemothorax, fx of ribs + clavicle—left side, laceration of liver, etc.

OFFICIAL INJURY DATA—SKELETAL INJURIES

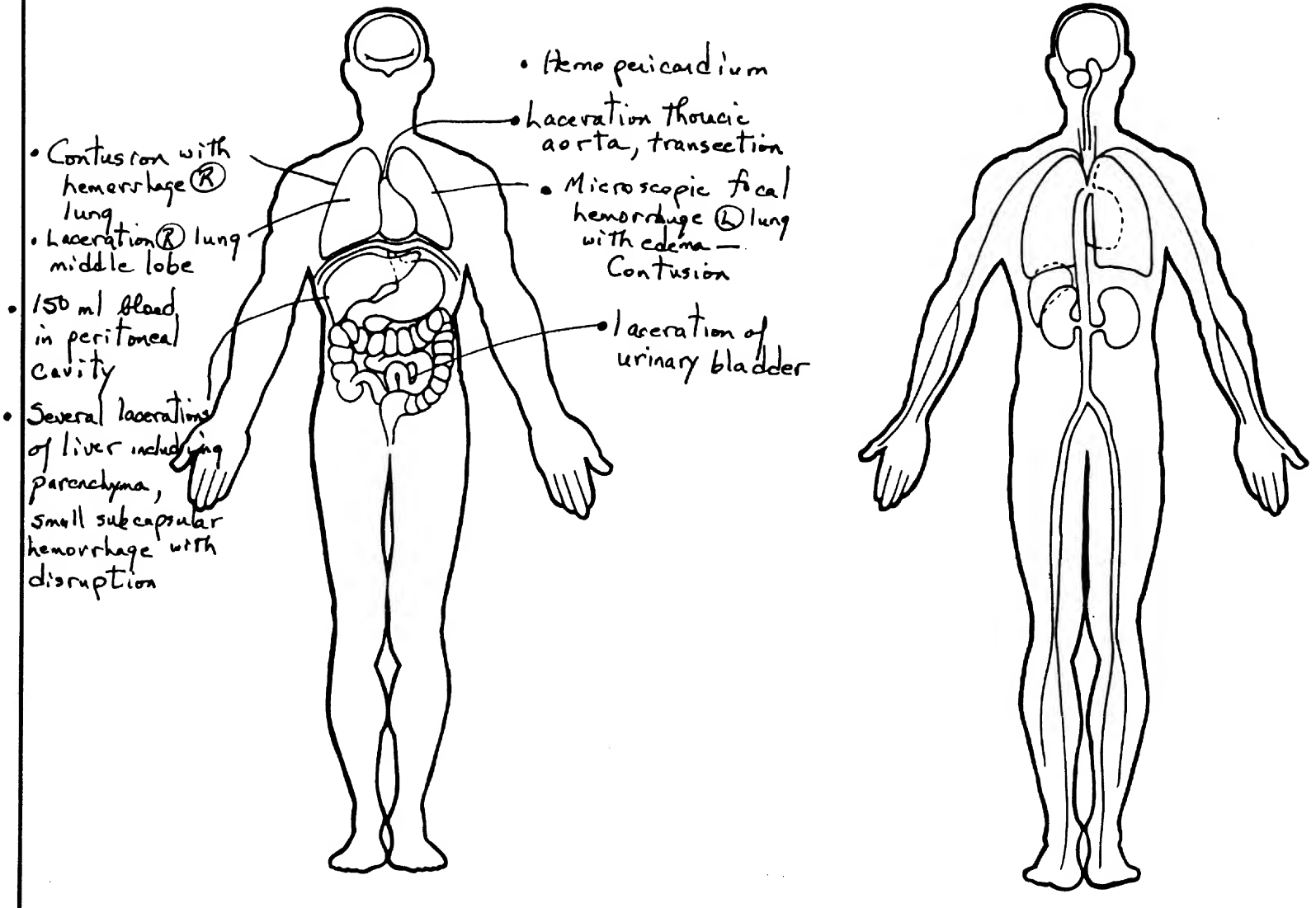
Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



[redacted] HOSPITAL
Department of Pathology [redacted] Indiana Final Autopsy Report

Name: [redacted] Hospital: # Autopsy: #[redacted]
Sex: Female Age: 39 Date: [redacted]

Date of Death: [redacted] Hour: 4:40 p.m.
Date of Autopsy: [redacted] Hour: 3:00 p.m.

Performed by: [redacted] M.D.

Copies to: [redacted] County Coroner

TITLE OF CASE: MULTIPLE TRAUMATIC INJURIES

CLINICAL HISTORY:

The patient was the driver of a car involved in an accident on March [redacted] 1991. The patient was pronounced dead at the scene and was transported to the morgue of [redacted] Hospital.

GROSS PROTOCOL:

External Examination:

The autopsy is performed on the unembalmed body of a white female identified as [redacted] The autopsy permit is signed by the [redacted] County Coroner, Mr. [redacted] and is unrestricted. The body is that of an obese, white female appearing the stated age of 39 years. Rigor mortis is no longer present, and postmortem lividity is purplish red and fixed on the posterior surface of the body. Height and weight are 61 inches and approximately 200 pounds, respectively. There is no jaundice in the skin or sclerae. Putrefaction is absent. The following artifacts at postmortem and/or medical care are present: EKG patches on the chest. There is no trauma or deformity of the head. However, there is a large hematoma on the right side of the face which measures 10 cm. x 8 cm. The irides are blue. The pupils are round and equal in diameter. There is fracture of the nasal bones and septum. There is blood in the nares and mouth. Teeth are present. There is no denture. Oral hygiene is difficult to estimate. The cranio-cervical junction displays normal range of motion. The cervical lymph nodes are not enlarged. There is not an increase in the A-P diameter of the chest. The breasts are symmetrical without palpable masses and the nipples appear normal without discharge. The back is unremarkable. The abdomen is not distended and without palpable masses. The external genitalia are those of a normal well developed adult female. There is no clubbing, edema or cyanosis of the extremities. The following skin lesions are present: On the face there is a right-sided hematoma (10 cm. x 8 cm.); multiple abrasions on the chest, abdomen, and extremities; laceration of the left axillary fossa 11 cm. in length; four lacerations on the right lower extremity, thigh region, measuring 13 x 6, 7 x 5, 3 x 1, and 6 x 2.5 cm. There are two additional lacerations below the right knee, one across which measures 11 cm. and the second measuring 3 cm. There is also fracture of the right femoral bone and fracture of the pelvic bones.

Internal Examination:

Serous Cavities: The body cavities are opened with a standard "Y"-shaped incision. The cranial cavity is opened with a coronal incision of the scalp and removal of the calvarium. There is no pneumothorax. There are no pleural adhesions. There is no evidence of peritonitis. There is blood in the right chest cavity (app. 300 ml). There is no ascitic fluid. There is approximately 150 ml. of blood in the peritoneal cavity. After removal of the organs from the body, inspection of the serous cavities reveals no fractures of the sternum or vertebral column. However, the left clavicle and all ribs on the left side are fractured. Pelvic bones are fractured. Contusion hemorrhage is present in the body walls.

Larynx and Neck: The larynx and trachea are in the midline. No significant hemorrhage is present in the skin, fat, or muscles of the anterior neck. The thyroid gland is not enlarged and is reddish-brown on cut section. The laryngeal cartilages and hyoid bone are not fractured. There is no obstruction of the upper respiratory tract. There is scant mucus in the larynx. The mucosa of the hypopharynx, larynx and trachea appears normal without edema, ulceration, or tumor. Cervical lymph nodes are not enlarged. No fractures of the cervical vertebrae are detected.

Heart: The heart weighs 360 g.m The heart is in the normal position with respect to the great vessels and chest cavity. On opening the aorta and pulmonary trunk, there is no evidence of air embolism and there is no evidence of pulmonary thromboembolism. The left ventricle is not hypertrophied. Pericarditis is not present. There is less than 25% stenosis of the left main, left anterior descending, circumflex, and right coronary arteries secondary to atherosclerosis. There are no thrombi present in the arteries. The valve leaflets and commissures are normal. The valve circumferences are normal for age. There are no defects in the atrial or ventricular septa. There is no evidence of recent or remote myocardial infarction. The ductus arteriosus is not patent. Autolysis is not significant.

Vascular System: The aorta and its main branches show minimal atherosclerosis. There is no evidence of aneurysm or coarctation of the aorta; however, there is laceration of the thoracic aorta present. The renal arteries are not stenotic.

Lungs: The right lung weighs 320 gm., the left lung 220 gm. The trachea is normal from the larynx to carina. There is no aspirated gastric material and no aspirated blood in the trachea. The distal bronchi contain scant mucus. No arterial thrombi are identified. The pleural surfaces are normal. There is contusion with hemorrhage of the right lung present on sectioning. There is also laceration of the middle lobe of the right lung. Bronchopneumonia is absent. There is no focal consolidation and no tumor. There is no interstitial congestion of the lungs. There is no evidence of pulmonary edema.

Hepatobiliary System: The liver weighs 1500 gm. The capsular surface is smooth. On cut section, the parenchyma is reddish brown and normal in architecture. There are several lacerations of the liver. The liver is not significantly passively congested. Metastatic tumor is not present. The cystic duct is obstructed with a large stone measuring 1.5 cm. in diameter and the gallbladder is present and is distended.

Spleen: The spleen weighs 200 gm. The capsule is smooth. On cut section, areas of white and red pulp are unremarkable. Autolysis is not significant.

Pancreas: The pancreas is appropriate in shape and size with respect to total body fat stores. On the cut surface it is lobular with interspersed fat without focal calcification, fibrosis, or fat necrosis. Interstitial hemorrhage is present. Autolysis is not significant.

Adrenal glands: Two adrenals are present and are of normal size and shape. No cortical nodules are present in either adrenal. Autolysis is not significant.

Urinary tract: The right kidney weighs 110 gm., the left one 110 gm. The two kidneys, two ureters, and a bladder are present in their usual positions without dilatation. The kidneys are symmetrical in shape and size. The capsules strip from the cortices with ease and the surfaces are smooth. On cut section, the cortex is normal and the medulla appears normal. There are no stones or tumors in the kidneys, pelves, or ureters. The mucosa of the urinary bladder appears normal. There is laceration of the bladder. Autolysis of the kidneys is not significant.

Genital tract: The uterus, fallopian tubes, and ovaries are present. They are of normal size and shape for age. There is no evidence of current pregnancy.

Gastrointestional tract: The esophagus is lined with glistening pearly gray mucosa. The stomach contains rugated mucosa. The stomach contains approximately 300 ml. of partially digested food. There are no erosions or ulcers in the stomach or duodenum. There is no submucosal hemorrhage. The small bowel is normal and without diverticula. Feces are present in the colon. The vermiform appendix is present.

Central Nervous System: (Brain weight before fixation = 1440 gm.) There is no hemorrhage in the scalp or galea. There is no epidural, subdural or subarachnoid hemorrhage. The cerebral and cerebellar hemispheres are symmetrical. The leptomeninges are clear. There is no flattening of the gyri and no widening of the sulci. The major vessels at the base of the brain have normal anatomic distribution and there is minimal atherosclerosis. The cranial nerves are symmetrical and intact. There is no evidence of herniation at any of the portals of the brain. On serial coronal sectioning of the brain, there is no evidence of contusion, edema, hemorrhage, tumor, atrophy, infection, or infarction in the cerebrum, cerebellum and brain stem.

Skull: There are no skull fractures. The craniocervical junction demonstrates normal range of motion.

MICROSCOPIC:

<u>Cardiovascular:</u> A section of heart shows myocardial fibers with no abnormalities. The nuclei are long and slender and are centrally located. There is no recent or remote myocardial infarction.

Lungs: Section of both lungs shows focal hemorrhage and edema fluid in the alveolar spaces. Alveolar septa are thin and delicate. Pigment-laden macrophages are present.

Liver: The sinuses are not dilated and the central vein system is unremarkable. The triads show no fibrosis or inflammation. The bile canaliculi are not dilated. The individual hepatocytes are unremarkable. There is a focus of small subcapsular hemorrhage. There is also disruption of the capsule as well as laceration of the liver parenchyma.

Spleen: There is moderate congestion of the spleen. White and red pulp are unremarkable. The capsule is smooth and unremarkable. A few lipid granulomas are present.

Adrenal Glands: The cortex shows typical tri-layered architecture. The medulla is unremarkable. There is no hemorrhage seen.

Pancreas: The lobular architecture is preserved; however, autolytic changes are severe. There is no significant hemorrhage seen.

Kidneys: The capsule is unremarkable. The glomeruli have normal cellularity. Bowman's space is unremarkable. The tubules appear to have normal histology.

Central Nervous System: Multiple cross sections of central nervous system are unremarkable. There is no tumor, hemorrhage, or inflammation seen.

Aorta: A section of aorta reveals significant atherosclerosis.

FINAL PATHOLOGIC DIAGNOSIS:

EXTERNAL:
- Multiple contusions, lacerations and abrasions
- Multiple rib fractures
- Fracture of left clavicle
- Pelvic fractures, multiple
- Femoral fracture, right

SEROUS CAVITIES:
- Hemothorax, right side
- Hemopericardium

CARDIOVASCULAR SYSTEM:
- Transection of thoracic aorta
- Coronary atherosclerosis, minimal

RESPIRATORY SYSTEM:
- Bilateral pulmonary contusions with hemorrhage, right side

HEPATOBILIARY SYSTEM:
Laceration of liver
No pathologic diagnosis

GASTROINTESTINAL:
No pathologic diagnosis

URINARY TRACT:
Laceration of urinary bladder

ADRENALS:
No pathologic diagnosis

CENTRAL NERVOUS SYSTEM:
No pathologic diagnosis

FINAL SUMMARY:

The autopsy was performed on the unembalmed body of a Caucasian female identified as [redacted]. Permission for the autopsy was granted by the [redacted] County Coroner, Mr. [redacted] and was unrestricted.

The pathologic findings related to the immediate cause of death were multiple traumatic injuries due to motor vehicle accident. These included transection of the thoracic aorta; right hemothorax; fracture of the ribs and clavicle, left side; laceration of the liver; multiple pelvic fractures; fracture, right femur; laceration of urinary bladder; contusion hemorrhage, right lung.

In summary, the immediate cause of death was multiple traumatic injuries due to motor vehicle accident.

Death Certificate signed as follows:

Immediate Cause of Death: Multiple traumatic injuries

Due To: Motor vehicle accident

Due To:

Other Conditions:

[redacted], M.D.
Resident

[redacted] M.D.
Pathologist

Appendix J:

NASS Occupant Forms: Vehicle #2 Passenger

U.S. Department of Transportation
National Highway Traffic Safety Administration

O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 02
4. Occupant Number: 02

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 14
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 2
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height: 66
Code actual height to the nearest inch.
(99) Unknown

8. Occupant's Weight: 130
Code actual weight to the nearest pound.
(999) Unknown

9. Occupant's Role: 2
(1) Driver
(2) Passenger
(9) Unknown

10. Occupant's Seat Position: 13

Front Seat
(11) Left side
(12) Middle
(13) Right Side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right Side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right Side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right Side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 9
(0) Normal posture
(1) Abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection: 0
(0) No ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, unknown degree
(9) Unknown

13. Ejection Area: 0
(0) No ejection
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.)
(specify): _____
(9) Unknown

14. Ejection Medium: 0
(0) No ejection
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify): _____
(5) Integral structure
(8) Other medium (specify): _____
(9) Unknown

15. Medium Status (Immediately Prior to Impact): 0
(0) No ejection
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

16. Entrapment: 1
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
(0) Not entrapped
(1) Entrapped
(9) Unknown

RESTRAINT SYSTEM AND SEAT EVALUATION

17. Manual (Active) Belt System Availability 4
(0) Not available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown
(8) Other belt (specify):
_____
(9) Unknown

18. Manual (Active) Belt System Use 0 0
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify):
_____
(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify):
_____
(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 0
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

Belt Used Improperly
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
_____
(8) Other improper use of manual belt system (specify):
_____
(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 0
(0) No manual belt used or not available
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):
_____
(6) Broken retractor
(7) Combination of above (specify):
_____
(8) Other manual belt failure (specify):
_____
(9) Unknown

21. Air Bag System Availability/Function 0
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify):
_____
(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment 0
(0) Not equipped/not available
(1) Air bag deployed during accident
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(9) Unknown

23. Did Air Bag System Fail? 0
(0) Not equipped/not available
(1) No
(2) Yes (specify):
_____
(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 0
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify):
_____
(8) Restrained, type unknown
(9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3
(0) No head restraints
(1) Integral—no damage
(2) Integral—damaged during accident
(3) Adjustable—no damage
(4) Adjustable—damaged during accident
(5) Add-on—no damage
(6) Add-on—damaged during accident
(8) Other specify):
_____
(9) Unknown

26. Seat Type (This Occupant Position) 05
(00) Occupant not seated or no seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., van type)
(09) Other seat type (specify):

_____

(99) Unknown

27. Seat Performance (This Occupant Position) 1
(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks failed
(4) Seat track/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify):

_____

_____

_____

(7) Combination of above (specify):

_____

(8) Other (specify):

_____

(9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 000
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
(997) Other make/model (specify):

_____

(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):

_____

(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):

_____

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):

_____

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):

_____

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 00

32. Child Safety Seat Shield Usage 00

33. Child Safety Seat Tether Usage 00
Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed with Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 4
(0) O—No injury
(1) C—Possible injury
(2) B—Nonincapacitating injury
(3) A—Incapacitating injury
(4) K—Killed
(5) U—Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment—Mortality 1
(0) No treatment
(1) Fatal
(2) Fatal—ruled disease

Nonfatal
(3) Hospitalized
(4) Transported and released
(5) Treatment at scene—nontransported
(6) Treatment later
(8) Treatment—other (specify):

_____

(9) Unknown

36. Type of Medical Facility (for Initial Treatment) 0
(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):

_____

(9) Unknown

37. Hospital stay 0 0
00 Code number of days (up through 60) that the occupant stayed in the hospital
(00) Not hospitalized
(61) 61 days or more
(99) Unknown

38. Working Days Lost 6 2
62 Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

39. Time to Death 0 1
____ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
(00) Not fatal
(96) Fatal—ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 9 9
41. 2nd Medically Reported Cause of Death 0 0
42. 3rd Medically Reported Cause of Death 0 0
____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(97) Other result (specify):

_____

(99) Unknown

43. Number of Recorded Injuries for This Occupant 0 8
____ Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

44. Automatic (Passive) Belt System Availability/ Function 0

(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts-type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use 0

(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):

_____

(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type 0

(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive) Belt System 0

(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

_____

(8) Other improper use of automatic belt system (specify): _____
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident 0

(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):

_____

(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):

_____

(9) Unknown

UPDATE CANDIDATE? NO [ ] YES [✓]

OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES [✓]

*** STOP HERE ***
IF THERE ARE NO RECORDED INJURIES
(I.E., OA43 = 00,97,99)

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number–Stratum: 9103
3. Vehicle Number: 02
4. Occupant Number: 02

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. C	7. C	8. L	9. A	10. 5	11. 11	12. 1	13. 1	14. 01
2nd	15. 1	16. C	17. R	18. C	19. P	20. 3	21. 11	22. 1	23. 1	24. 01
3rd	25. 1	26. M	27. R	28. L	29. L	30. 2	31. 11	32. 1	33. 1	34. 01
4th	35. 1	36. M	37. L	28. L	39. Q	40. 2	41. 11	42. 1	43. 1	44. 01
5th	45. 1	46. F	47. R	48. F	49. S	50. 2	51. 01	52. 1	53. 1	54. 00
6th	55. 1	56. T	57. R	58. F	59. S	60. 3	61. 11	62. 1	63. 1	64. 01
7th	65. 1	66. C	67. U	68. U	69. U	70. 4	71. 11	72. 1	73. 1	74. 01
8th	75. 1	76. Q	77. R	78. F	79. S	80. 2	81. 56	82. 1	83. 1	84. 97
9th	85.	86.	87.	88.	89.	90.	91.	92.	93.	94.
10th	95.	96.	97.	98.	99.	100.	101.	102.	103.	104.

HS Form 433B (1/91)

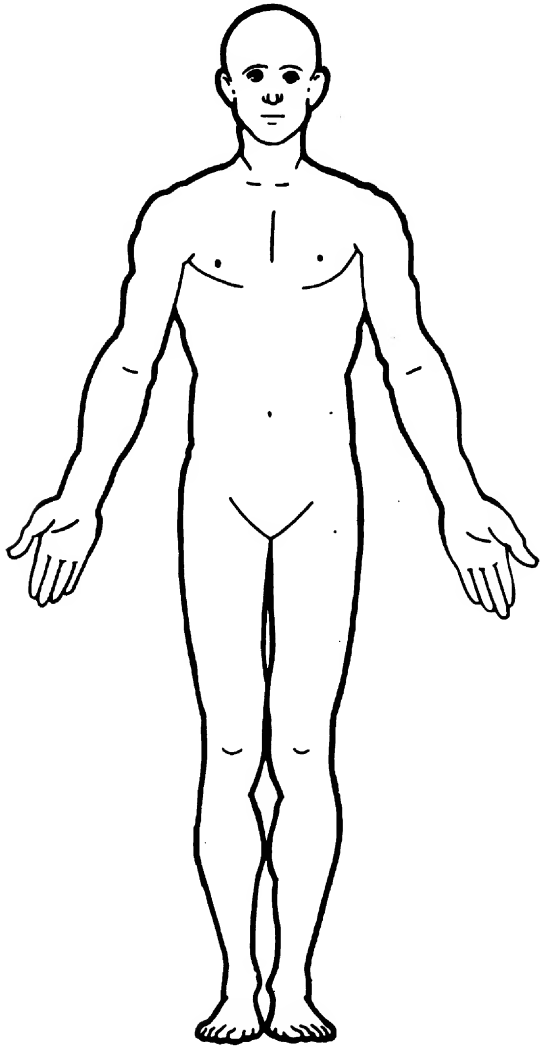
This report is authorized by P.L. 89-563, Title 1, Section 106, 108, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely.

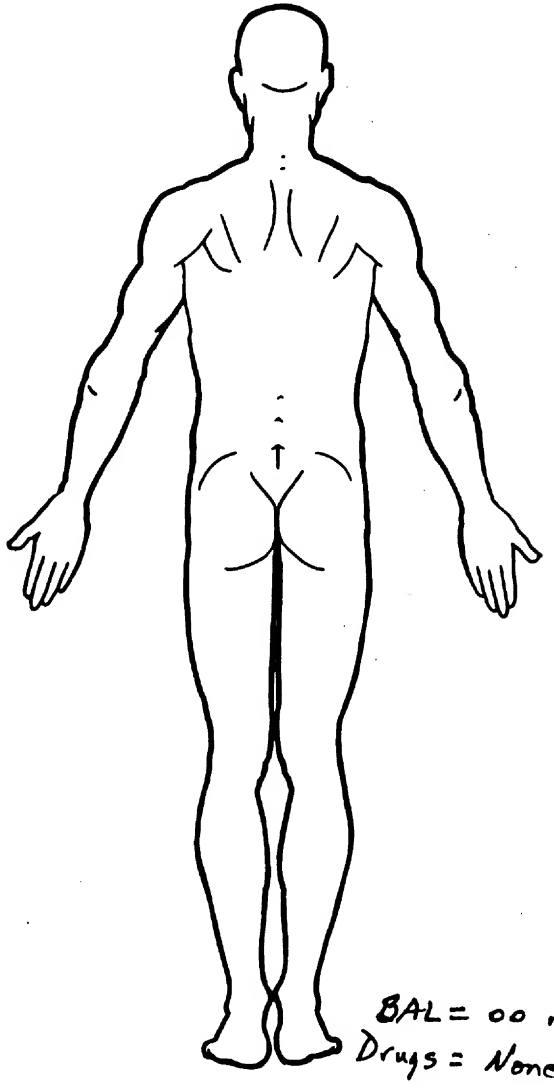
OFFICIAL INJURY DATA—SOFT TISSUE INJURIES

Thrown from passenger seat (RF) into rear seat of automobile Time to Death—9 minutes

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Preliminary Autopsy Report



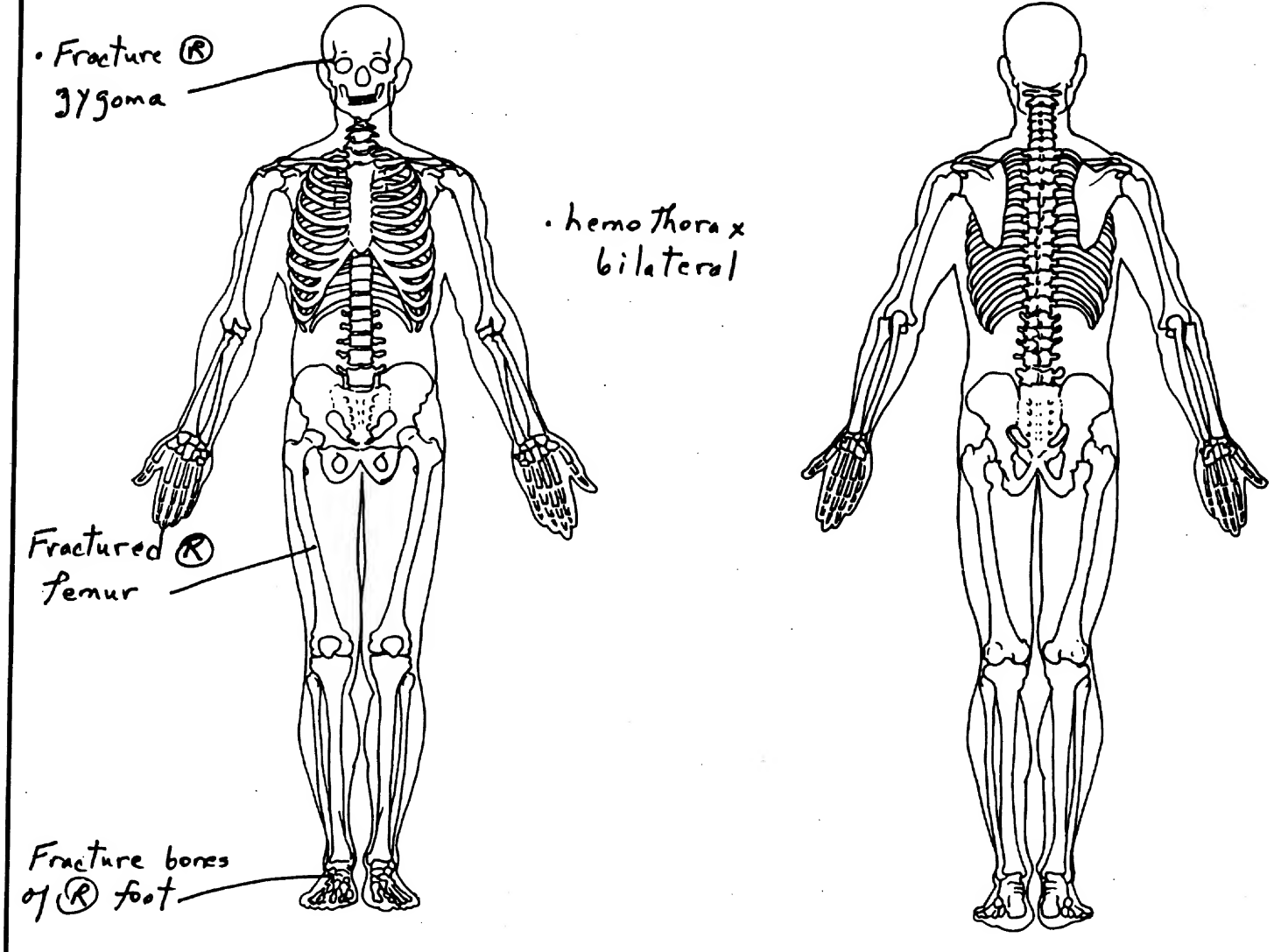


BAL = 00 mg/dl
Drugs = None Detected

Cause of Death: Multiple traumatic injuries due to motor vehicle accident

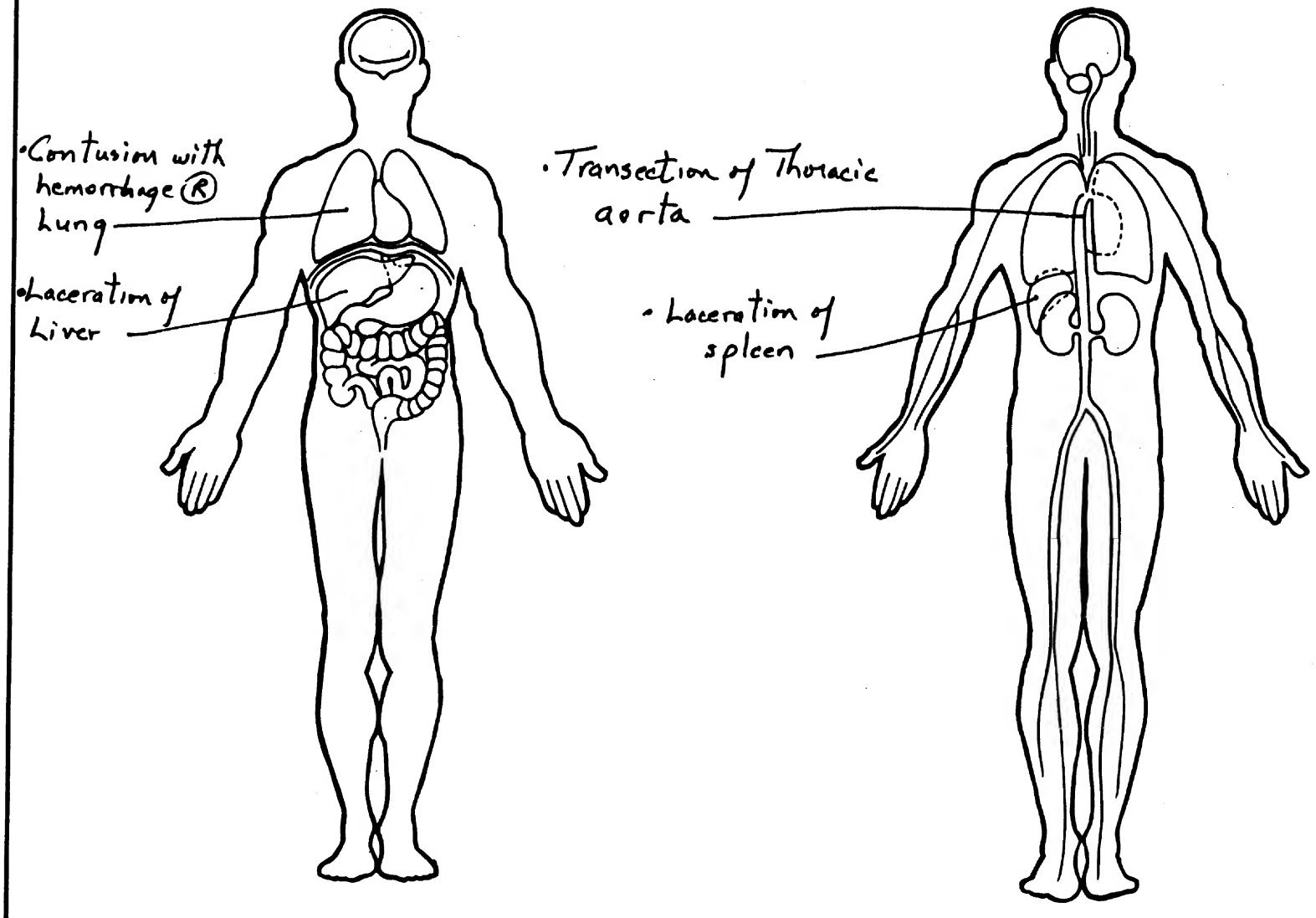
OFFICIAL INJURY DATA – SKELETAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



[redacted] MEDICAL LABORATORIES
at
[redacted] HOSPITAL
[redacted]

Department of Pathology

Preliminary Autopsy Report

Name: [redacted] Hospital: [redacted] Autopsy: [redacted]
Sex: Female Age: 14 Date:

Date of Death: [redacted] Hour: 4:37 p.m.
Date of Autopsy: [redacted] Hour: [redacted]

Performed by: [redacted] M.D.

Copies to: [redacted] County Coroner

Death Certificate signed as follows:

Immediate Cause of Death: Multiple traumatic injuries

Due To: Motor vehicle accident

Due To:

Other Conditions:

The following is a summary of the pertinent gross findings. A complete report will be sent to you at the completion of our studies.

SUMMARY:

The autopsy is performed on the unembalmed body of a Caucasian female identified as [redacted]. Permission for the autopsy is granted by the [redacted] County Coroner, and is unrestricted.

The pathologic findings related to the immediate cause of death are those of transection of the thoracic aorta; hemothorax, bilateral; laceration of liver; laceration of spleen; contusion with hemorrhage, right lung; fractured right femoral bone; fracture of bones of right foot; fracture of right zygomatic bone.

In summary, the immediate cause of death is multiple traumatic injuries due to motor vehicle accident.

[redacted]

[redacted] M.D.
Resident

[redacted] M.D.
Pathologist

SPECIAL CHEMISTRY

TEST	UNITS	RANGE

THERAPEUTIC DRUGS & TOXICOLOGY

DRUG SCREEN [redacted]

Blood/Serum Drug Screen

Phenobarbital: None detected
Barbiturates excluding Phenobarbital: None detected
Caffeine: None detected
Nicotine: None detected
Acetaminophen: None detected
Ethinamate: None detected
Strychnine: None detected
Phenothiazine Metabolite: None detected
Amitriptyline: None detected
Methadone: None detected
Nortriptyline: None detected
Methaqualone: None detected
Imipramine: None detected
Quinine: None detected
Doxepin: None detected
Morphine: None detected
Amphetamines: None detected
Cocaine: None detected
Methamphetamine: None detected
Codeine: None detected
Pseudoephedrine: None detected
PCP: None detected
Phenytoin: None detected
Propoxyphene: None detected
Glutethimide: None detected
Meperidine: None detected
Benzodiazepines: None detected
Meprobamate: None detected
BLOOD ALCOHOL = 0 MG/DL OR 0.000%

US Department of Transportation
National Highway Traffic Safety Administration

UPDATE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	10
2. Case Number - Stratum	9103
3. Vehicle Number	02
4. Occupant Number	02

Driver or Occupant Name: _____

Address: _____

_____

Other Information: _____

_____

(Sanitize this section prior to Update submission.)

STATUS OF LOG INJURY INFORMATION

Injury Information 11

(00) Not medically treated/record not required
(01) No record of treatment at medical facility
(02) Medical release required - not obtained
(03) Injury not related to accident
(04) Noncooperative hospital
(05) Hospital out-of-study area
(06) Private physician would not release data
(07) Unknown if medically treated
(08) To be updated
(09) Record not received before file closeout
(10) Record not obtained
(11) Record obtained
(12) Partial record obtained - not to be updated
(13) Partial record obtained - to be updated

UPDATED CASE INFORMATION

	INITIAL SUBMISSION	UPDATED INFORMATION
GV12. Alcohol Test Result Result for Driver		
GV39. Other Drug Specimen Test Type for Driver		
GV40.-GV41. Narcotic Drug		
GV42.-GV43. Depressant Drug		
GV44.-GV45. Stimulant Drug		
GV46.-GV47. Hallucinogen Drug		
GV48.-GV49. Cannabinoid Drug		
GV50.-GV51. Phencyclidine (PCP)		
GV52.-GV53. Inhalant Drug		
GV54.-GV55. Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)		
OA05. Occupant's Age	14	
OA06. Occupant's Sex	2	
OA07. Occupant's Height	66	
OA08. Occupant's Weight	130	
OA17. Manual (Active) Belt System Availability	4	
OA18. Manual (Active) Belt System Use	00	
OA21. Air Bag System Availability/Function	0	
OA22. Air Bag System Deployment	0	
OA35. Treatment - Mortality	1	
OA36. Type of Medical Facility (for Initial Treatment)	0	
OA37. Hospital Stay	00	
OA38. Working Days Lost	62	
OA39. Time to Death	01	
OA40. 1st Medically Reported Cause of Death	99	01
OA41. 2nd Medically Reported Cause of Death	00	08
OA42. 3rd Medically Reported Cause of Death	00	02
OA43. Number of Recorded Injuries for This Occupant	08	18
OA44. Automatic (Passive) Belt System Availability/Function	0	
OA45. Automatic (Passive) Belt System Use	0	

INJURY DATA CODED ON INITIAL SUBMISSION

	Source of Injury Data	O.I.C.-A.I.S Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. C	7. C	8. L	9. A	10. 5	11. 11	12. 1	13. 1	14. 01
2nd	15. 1	16. C	17. R	18. C	19. P	20. 3	21. 11	22. 1	23. 1	24. 01
3rd	25. 1	26. M	27. R	28. L	29. L	30. 2	31. 11	32. 1	33. 1	34. 01
4th	35. 1	36. M	37. L	38. L	39. Q	40. 2	41. 11	42. 1	43. 1	44. 01
5th	45. 1	46. F	47. R	48. F	49. S	50. 2	51. 01	52. 1	53. 1	54. 00
6th	55. 1	56. T	57. R	58. F	59. S	60. 3	61. 11	62. 1	63. 1	64. 01
7th	65. 1	66. C	67. U	68. U	69. U	70. 4	71. 11	72. 1	73. 1	74. 01
8th	75. 1	76. Q	77. R	78. F	79. S	80. 2	81. 56	82. 1	83. 1	84. 97
9th	85. ___	86. ___	87. ___	88. ___	89. ___	90. ___	91. ___ ___	92. ___	93. ___	94. ___ ___
10th	95. ___	96. ___	97. ___	98. ___	99. ___	100. ___	101. ___ ___	102. ___	103. ___	104. ___ ___
11th	105. ___	106. ___	107. ___	108. ___	109. ___	110. ___	111. ___ ___	112. ___	113. ___	114. ___ ___
12th	115. ___	116. ___	117. ___	118. ___	119. ___	120. ___	121. ___ ___	122. ___	123. ___	124. ___ ___
13th	125. ___	126. ___	127. ___	128. ___	129. ___	130. ___	131. ___ ___	132. ___	133. ___	134. ___ ___
14th	135. ___	136. ___	137. ___	138. ___	139. ___	140. ___	141. ___ ___	142. ___	143. ___	144. ___ ___
15th	145. ___	146. ___	147. ___	148. ___	149. ___	150. ___	151. ___ ___	152. ___	153. ___	154. ___ ___
16th	155. ___	156. ___	157. ___	158. ___	159. ___	160. ___	161. ___ ___	162. ___	163. ___	164. ___ ___
17th	165. ___	166. ___	167. ___	168. ___	169. ___	170. ___	171. ___ ___	172. ___	173. ___	174. ___ ___
18th	175. ___	176. ___	177. ___	178. ___	179. ___	180. ___	181. ___ ___	182. ___	183. ___	184. ___ ___
19th	185. ___	186. ___	187. ___	188. ___	189. ___	190. ___	191. ___ ___	192. ___	193. ___	194. ___ ___
20th	195. ___	196. ___	197. ___	198. ___	199. ___	200. ___	201. ___ ___	202. ___	203. ___	204. ___ ___

NOTE: Keep a photocopy of the following original submitted pages when applicable: Exterior Vehicle Form pages 2, 3, 4; Interior Vehicle Form pages 1-reverse, 2, 4, 5; Occupant Injury Form pages 2, 3, 3-reverse; Interview Form pages 3, 4, 5.

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the unofficial and official prior to initial case submission **and from subsequently** acquired medical data. Remember not to double count an injury just because it was identified from two different sources.

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
1st	5. 1	6. C	7. C	8. L	9. A	10. 5	11. 11	12. 1	13. 1	14. 01
2nd	15. 1	16. C	17. R	18. C	19. P	20. 3	21. 11	22. 1	23. 1	24. 01
3rd	25. 1	26. C	27. L	28. C	29. P	30. 3	31. 11	32. 1	33. 1	34. 01
4th	35. 1	36. M	37. R	28. L	39. L	40. 2	41. 11	42. 1	43. 1	44. 01
5th	45. 1	46. M	47. L	48. L	49. Q	50. 2	51. 11	52. 1	53. 1	54. 01
6th	55. 1	56. F	57. R	58. F	59. S	60. 2	61. 15	62. 1	63. 1	64. 02
7th	65. 1	66. T	67. R	68. F	69. S	70. 3	71. 11	72. 1	73. 1	74. 01
8th	75. 1	76. C	77. U	78. U	79. U	80. 4	81. 11	82. 1	83. 1	84. 01
9th	85. 1	86. Q	87. R	88. F	89. S	90. 2	91. 56	92. 1	93. 1	94. 97
10th	95. 1	96. F	97. W	98. L	99. I	100. 1	101. 01	102. 1	103. 1	104. 00

If greater than 10 injuries, code additional on Occupant Injury Data Supplement.

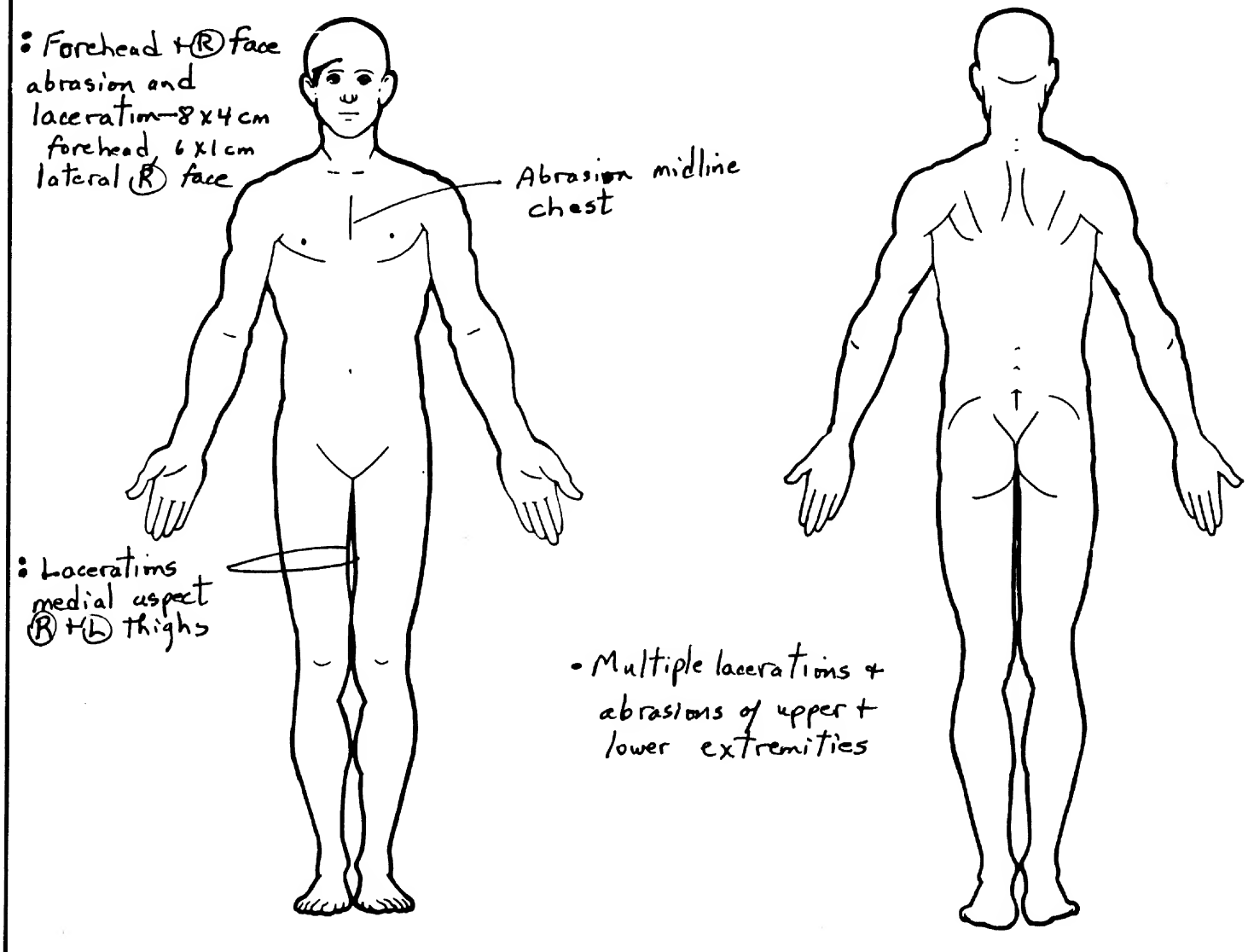
OCCUPANT INJURY DATA

	Source of Injury Data	O.I.C.—A.I.S. Body Region	Aspect	Lesion	System Organ	A.I.S. Severity	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.
11th	1	F	W	A	I	1	01	1	1	00
12th	1	C	C	A	I	1	11	1	1	01
13th	1	T	R	L	I	1	11	1	1	01
14th	1	T	L	L	I	1	11	1	1	01
15th	1	X	U	L	I	1	11	2	1	01
16th	1	Y	U	L	I	1	11	2	1	01
17th	1	X	U	A	I	1	11	2	1	01
18th	1	Y	U	A	I	1	11	2	1	01
19th	—	—	—	—	—	—	— —	—	—	— —
20th	—	—	—	—	—	—	— —	—	—	— —
21st	—	—	—	—	—	—	— —	—	—	— —
22nd	—	—	—	—	—	—	— —	—	—	— —
23rd	—	—	—	—	—	—	— —	—	—	— —

OFFICIAL INJURY DATA—SOFT TISSUE INJURIES

AUTOPSY PASSENGER Dead at Scene

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



Cause of Death: multiple traumatic injuries including transection of thoracic aorta, hemothorax, bilateral, laceration liver, laceration spleen, contusion® lung, etc.

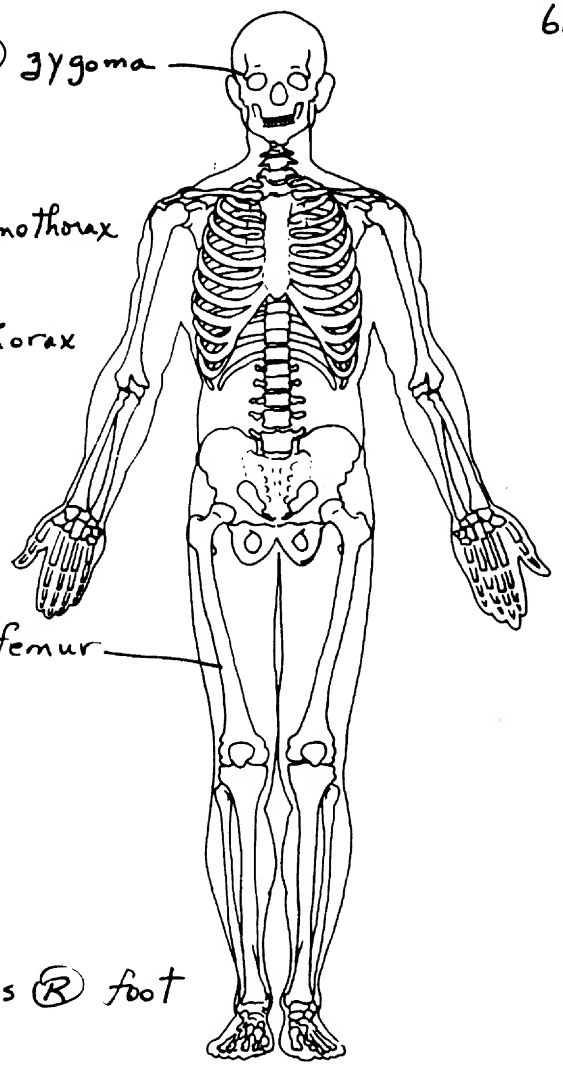
OFFICIAL INJURY DATA—SKELETAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

• No Fxs sternum, clavicles, vertebral column, pelvic bones, or ribs

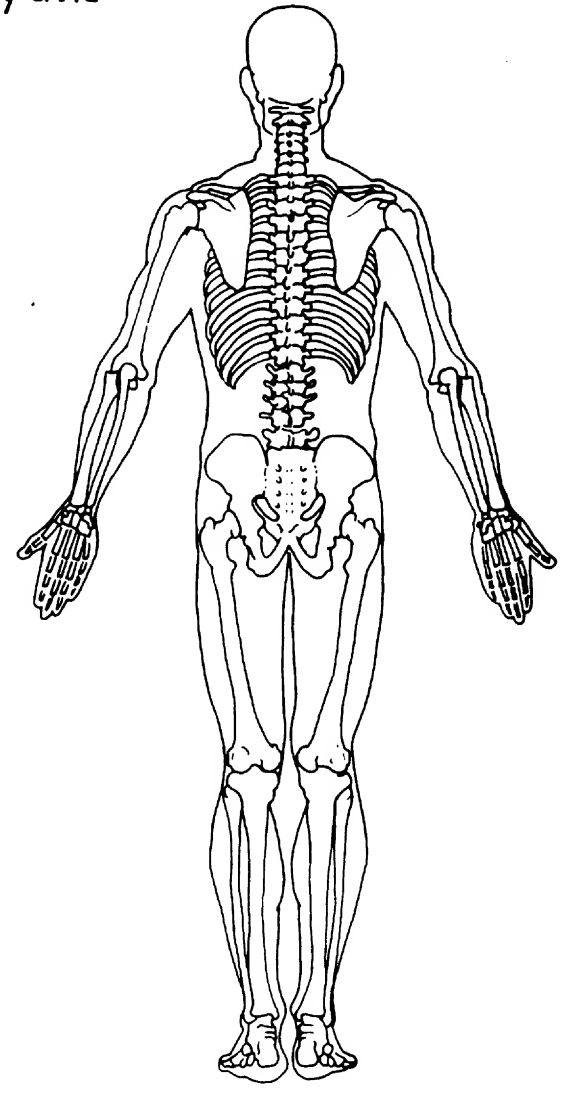
Fx (R) zygoma

• Bilateral hemothorax
(L) 1000 ml
(R) 200 ml
No pneumothorax



• Fx (R) femur

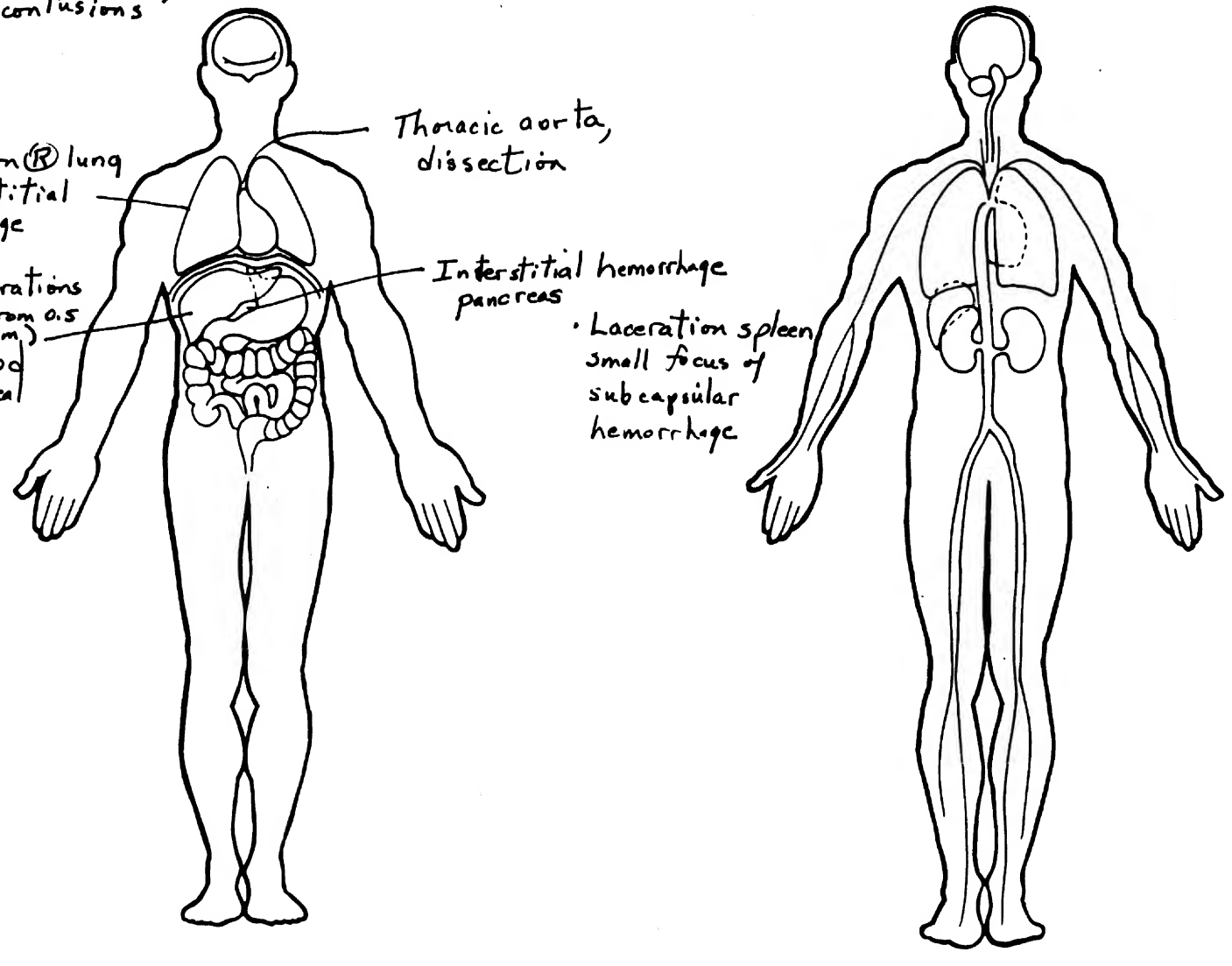
• Fx bones (R) foot



OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Both lungs show microscopic hemorrhage into alveolar spaces + lung parenchyma. — Bilateral lung contusions



[redacted] HOSPITAL
Department of Pathology [redacted] Indiana Final Autopsy Report

Name: [redacted] Hospital: # Autopsy: #[redacted]
Sex: Female Age: 14 Date: [redacted]

Date of Death: [redacted] Hour: 4:37 p.m.
Date of Autopsy: [redacted] Hour: 1:00 p.m.

Performed by: [redacted] M.D.

Copies to: [redacted] County Coroner

TITLE OF CASE: MULTIPLE TRAUMATIC INJURIES

CLINICAL HISTORY:

The patient was in the passenger seat of a car which was involved in an accident on March [redacted], 1991. The patient was pronounced dead at the scene and transported to the morgue of [redacted] Hospital.

External Examination:

The autopsy is performed on the unembalmed body of a white female identified as [redacted] by the [redacted] County Coroner. The autopsy permit is signed by the [redacted] County Coroner, Mr. [redacted] and is unrestricted. The body is that of a well developed, well nourished, white female appearing the stated age of 14 years. Rigor mortis is no longer present, and postmortem lividity is purplish red and fixed on the posterior surface of the body. Height and weight are 66 inches and 130 pounds, respectively. There is no jaundice in the skin or sclerae. Putrefaction is absent. There is fracture of the right zygomatic bone present. The irides are brown. The pupils are round and equal in diameter. The nose is normal. There is scant mucus in the mouth. Teeth are present. There is no denture. Oral hygiene is good. The cranio-cervical junction displays normal range of motion. The cervical lymph nodes are not enlarged. There is no increase in the A-P diameter of the chest. The breasts are symmetrical without palpable masses and the nipples appear normal without discharge. The back is unremarkable. The abdomen is not distended without palpable masses. The external genitalia are those of a normal, well-developed adult female. There is no clubbing, edema or cyanosis of the extremities. The following skin lesions are present: multiple abrasions and lacerations, the largest one on the forehead and right side of the face. The abrasion and laceration of the forehead measures 8 x 4 cm. The lateral side of the face is 6 cm. x 1 cm. There is also an abrasion in the midline of the chest. There are also lacerations of the medials aspect of both thighs, also multiple lacerations and abrasions of the upper and lower extremities are present. There is fracture of the right femoral bone as well as fracture of the bones of the right foot.

Internal Examination:

Serous Cavities: The body cavities are opened with a standard "Y"-shaped incision. The cranial cavity is opened with a coronal incision of the scalp and removal of the calvarium. There is no pneumothorax. There are approximately 1,000 ml. of blood in the left pleural cavity and approximately 200 ml. in the right. There are no pleural adhesions.

There is no evidence of peritonitis. There are approximately 300 ml. of blood present in the peritoneal cavity. After removal of the organs from the body, inspection of the serous cavities reveals no fractures of the sternum, clavicles, vertebral column or pelvic bones. Ribs are not fractured.

Larynx and Neck: The larynx and trachea are in the midline. No significant hemorrhage is present in the skin, fat, or muscles of the anterior neck. The thyroid gland is not enlarged and is reddish-brown on cut section. The laryngeal cartilages and hyoid bone are not fractured. There is no obstruction of the upper respiratory tract. There is scant mucus in the larynx. The mucosa of the hypopharynx, larynx and trachea appears normal without edema, ulceration, or tumor. Cervical lymph nodes are not enlarged. No fractures of the cervical vertebrae are detected.

Heart: The heart weighs 230 gm. The heart is in the normal position with respect to the great vessels and chest cavity. On opening the aorta and pulmonary trunk, there is no evidence of air embolism and there is no evidence of pulmonary thromboembolism. The left ventricle is not hypertrophied. Pericarditis is not present. There is less than 25% stenosis of all coronary arteries. There are no thrombi present in the arteries. The valve leaflets and commissures are normal. The valve circumferences are normal for age. There are no defects in the atrial or ventricular septa. There is no evidence of recent or remote myocardial infarction. The ductus arteriosus is not patent. Autolysis is not significant.

Vascular System: The aorta and its main branches show no atherosclerosis. There is no evidence of aneurysm or coarctation of the aorta. However, there is dissection of the thoracic aorta. The renal arteries are not stenotic.

Lungs: The right lung weighs 440 gm., the left one 150 gm. The trachea is normal from the larynx to carina. There is no aspirated gastric material or aspirated blood in the trachea. The distal bronchi contain scant mucus. No arterial thromboemboli are identified. The pleural surfaces are normal. The right lung has a contusion and interstitial hemorrhage. The lungs and hilar nodes are not significantly anthracotic and there is no bullous emphysema. Bronchopneumonia is absent. There is no focal consolidation and no tumor. There is no evidence of pulmonary edema.

Hepatobiliary System: The liver weighs 1340 gm. The capsular surface is smooth. There are several lacerations on the liver identified measuring from 0.5 cm. in length for the smallest one to 7 cm. in length for the largest one. On cut section the parenchyma is reddish brown and has a normal architecture. The liver is not significantly passively congested. Metastatic tumor is not present. The hepatic duct is patent. The gallbladder is present. Autolysis of the liver is not significant.

Spleen: The spleen weighs 130 gm. The capsule is smooth. There is laceration of the spleen present. On cut section areas of white and red pulp are unremarkable. Autolysis of the spleen is not significant.

Pancreas: The pancreas is appropriate in shape and size with respect to total body fat stores. On the cut surface it is lobular with interstitial hemorrhage. There is no calcification, fibrosis, or fat necrosis present. Autolysis is not significant.

Adrenal glands: Two adrenals are present and are of normal size and shape. No cortical nodules are present in either adrenal. Autolysis is not significant.

Urinary tract: The right kidneys weighs 110 gm., the left kidney 110 gm. The two kidneys, two ureters, and a bladder are present in their usual positions without dilatation. The kidneys are symmetrical in shape and size. The capsules strip from the cortices with ease and the surfaces are smooth. On cut section, the cortex is normal and the medulla appears normal. There are no stones or tumors in the kidneys, pelves, or ureters. Autolysis of the kidneys is not significant.

Genital tract: The uterus, fallopian tubes and ovaries are present. They are of normal size and shape for age. No tumors are present. There is no evidence of current pregnancy.

Gastrointestional tract: The esophagus is lined with glistening white mucosa. The stomach contains rugated mucosa. The stomach contains 150 ml. of partially digested food. There are no erosions or ulcers in the stomach or duodenum. There is no submucosal hemorrhage. The small bowel is normal and without diverticula. Feces are present in the colon. The vermiform appendix is present.

Central Nervous System: (Brain weight before fixation = 1340 gm.) There is no hemorrhage in the scalp or galea. There is no epidural, subdural or subarachnoid hemorrhage. The cerebral and cerebellar hemispheres are symmetrical. The leptomeninges are clear. There is no flattening of the gyri and no widening of the sulci. The major vessels at the base of the brain have normal anatomic distribution and there is no atherosclerosis. The cranial nerves are symmetrical and intact. There is no evidence of herniation at any of the portals of the brain. On serial coronal sectioning of the brain, there is no evidence of contusion, edema, hemorrhage, tumor, atrophy, infection, or infarction in the cerebrum, cerebellum and brain stem.

Skull: There are no skull fractures. The craniocervical junction demonstrates normal range of motion.

MICROSCOPIC:

Cardiovascular: A section of heart shows myocardial fibers with centrally located nuclei. There is no interstitial fibrosis present. There is no recent or remote myocardial infarction. The lumens of the coronary arteries are not occluded by thrombus or atherosclerosis.

Lungs: Sections of both lungs show hemorrhage into the alveolar spaces as well as the lung parenchyma. Focally within the lung parenchyma and the small bronchioles, inflammatory cells composed of lymphocytes are seen. Within the left lung, a small calcified granuloma is seen.

Liver: The capsule is smooth. The usual lobular architecture is retained. Sinuses are not dilated, and the central vein system is unremarkable. Portal triads show no fibrosis or inflammation. Bile duct canaliculi are not dilated. Individual hepatocytes are unremarkable.

Spleen: The capsule is smooth. The red and white pulp ratio is within normal limits. There is a small focus of subcapsular hemorrhage.

Kidneys: Sections of both kidneys including both H & E and PAS staining show basically normal histology. The individual glomeruli have a normal amount of cellularity without inflammation. The interstitium is unremarkable. The tubules have normal cellularity and nuclei. There is no basement membrane thickening seen on PAS stain. Bowman's spaces are normal.

Pancreas: Autolysis of the pancreas is marked. There is no hemorrhage into the pancreas.

Gallbladder: There is severe autolytic changes of the mucosa. The muscularis and serosa appear to be unremarkable.

Adrenal Glands: The cortices of bilateral adrenals show unremarkable tri-layered archite medullae appear to be normal.

Central Nervous System: Sections obtained from the brain show normal brain histology. There is no hemorrhage, inflammation or tumor identified.

FINAL PATHOLOGIC DIAGNOSIS:

EXTERNAL:
Abrasions with lacerations, multiple: head, face, chest, lower extremities
Right femoral bone fracture
Fracture of bones of right foot
Right zygomatic bone fracture

SEROUS CAVITIES:
Hemothorax, right pleural cavity, estimated 200 cc.
Hemothorax, left pleural cavity, estimated 1,000 cc.
Hemoperitoneum, estimated 300 cc.

CARDIOVASCULAR:
No pathologic diagnosis

RESPIRATORY:
Pulmonary contusion, bilateral
Calcified granuloma, left lung

LIVER:
Lacerations, multiple

GALLBLADDER:
No pathologic diagnosis

PANCREAS:
No pathologic diagnosis

KIDNEYS:
No pathologic diagnosis

ADRENALS:
No pathologic diagnosis

URINARY TRACT:
No pathologic diagnosis

GENITAL TRACT:
No pathologic diagnosis

GASTROINTESTINAL:
No pathologic diagnosis

CENTRAL NERVOUS SYSTEM:
No pathologic diagnosis

FINAL SUMMARY:

The autopsy was performed on the unembalmed body of a Caucasian female identified as [redacted]. The permission for the autopsy was granted by the [redacted] County Coroner, Mr. [redacted], and was unrestricted.

The pathologic findings related to the immediate cause of death were those of transection of the thoracic aorta; hemothorax, bilateral; laceration of the liver; laceration of the spleen; contusion with hemorrhage, right lung; fracture, right femoral bone; fracture of bones of right foot; fracture of right zygomatic bone.

In summary, the immediate cause of death was multiple traumatic injuries due to motor vehicle accident.

Death Certificate signed as follows:

Immediate Cause of Death: Multiple traumatic injuries

Due To: Motor vehicle accident

Due To:

Other Conditions:

[redacted] M.D.
Resident

[redacted] M.D.
Pathologist